

# **Data Center Energy Sector**





## Overview

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Global electricity demand from data centers is set to more than double to 945 TWh by 2030, equivalent to Japan's current total power consumption, as artificial intelligence drives unprecedented growth in the sector's energy needs, the International Energy Agency said April 10. A new report from the IEA assesses how the relationship between energy and artificial intelligence (AI) is evolving rapidly, drawing on the latest data and analysis and close tracking of technological and economic developments in the AI sector. Gartner analysts estimate worldwide data center electricity consumption will rise from 448 terawatt hours (TWh) in 2025 to. Artificial intelligence is experiencing a real boom, and with it the demand for energy needed to power its infrastructure is growing rapidly. Demand for power is only growing, while the electricity grid is aging and new grid projects face permitting and supply chain challenges. This article is a collaborative effort by Alastair Green, Humayun Tai, Jesse Noffsinger, and Pankaj Sachdeva, with Arjita Bhan and Raman Sharma, representing views from McKinsey's Electrical Power & Natural Gas; Technology, Media & Telecommunications; and Private Capital Practices.



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### **Bloom Energy Rockets 23% as Fuel Cell Tech Becomes the AI Data Center**

Bloom Energy (NYSE:BE) stock surged 23% in Tuesday trading, extending a powerful run that has made it one of the most talked-about names in the energy sector. The move builds on a

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### **2025 Data Center Power Report**

In the US, the rapid deployment of new data center capacity is a strategic priority, but there is a major bottleneck: power availability. Demand for power is only growing, while the electricity grid is aging

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## **Executive summary - Energy and AI - Analysis**

Based on a new global model and comprehensive dataset of data centre electricity demand, its analysis was also enriched by an in-depth process of consultation

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## **Takanock Lands \$500M to Power Data Center Growth**

In a high-powered push to solve the growing energy bottleneck choking data center development, Takanock LLC has secured a \$500 million

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## **Utilities under pressure: 6 power sector trends to watch**

In 2026, power sector participants will be closely watching exactly how much data center load comes online and whether current forecasts are accurate.



## **Growing Energy Demand of AI - Data Centers**

AI is driving a surge in data center energy demand. Explore key data from 2024-2025 and forecasts for 2026, including infrastructure, costs, and

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## **Global data center power demand to double by 2030 on AI surge: IEA**

Global electricity demand from data centers is set to more than double to 945 TWh by 2030, equivalent to Japan's current total power consumption, as artificial intelligence drives unprecedented growth in

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## **Silver Demand Forecast to Expand Across Key Technology Sectors**

As a result, global silver industrial demand is poised to grow further as demand from vital technology sectors accelerates over the next five years. Sectors such as solar energy (PV),

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## **How Data Centers Redefined Energy and Power in 2025**

Data centers stand out as major energy consumers, with demand rising rapidly in the US and in China. Interest in nuclear, including small modular

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## **Hyperscalers will decide Australia's data centre future,**

Data centre-aligned experts say the sector will be defined by the demands of hyperscale AI players, and not the needs of the energy system.

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## **Beyond the grid: how Europe's data centre sector is**

EU and UK policymakers and legislators are sharpening their focus on data centre energy consumption. The most effective routes for data centres to

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## **EIA projects record US data center power use amid AI**

Home News The Energy & Sustainability Channel EIA projects record US data center power use amid AI and crypto boom US commercial electricity

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## **Data centre electricity use surged in 2025, even with tightening**



Data centre electricity use surged in 2025, even with tightening bottlenecks driving a scramble for solutions - News from the International Energy Agency

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## **Energy performance of data centres**

As digitalisation accelerates, data centres are a vital and quickly growing infrastructure across Europe and the world, supporting our ever-growing

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## **DOE Announces Site Selection for AI Data Center and**

DOE has selected four sites -- Idaho National Laboratory, Oak Ridge Reservation, Paducah Gaseous Diffusion Plant and Savannah River Site --to

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## **Gartner Says Electricity Demand for Data Centers to**

Electricity demand for data centers worldwide is projected to grow 16% in 2025 and to double by 2030, according to Gartner, Inc., a business and

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## **Record US data center power usage amid AI boom,**

EIA highlighted that a major contributor to the revised outlook is the expansion of data centers, particularly those supporting AI workloads In sum --

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## **Data centers and AI: How the energy sector can meet**

The growth of data centers and AI rely on the availability of electric power. Opportunities for investors in power infrastructure and adjacent sectors



## **Commission adopts EU-wide scheme for rating**

The Commission has adopted a new delegated regulation on the first phase for establishing an EU-wide scheme to rate the sustainability of EU data

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## **Bitcoin Miners Are Transforming into AI Data Centers in**

Facing rising costs and falling rewards, Bitcoin miners are pivoting to AI infrastructure. Explore how crypto facilities are being repurposed into data

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## **DOE Releases New Report Evaluating Increase in**



DOE's key strategies for meeting data center energy demand include: Enabling data center flexibility through onsite power generation and storage

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## **AI is set to drive surging electricity demand from data**

While the increase in electricity demand for data centres is set to drive up emissions, this increase will be small in the context of the overall energy

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## **China's Data Center Boom Could Double Power Demand by 2030**

China's rapid expansion of AI-driven data centers is set to more than double electricity consumption from the sector by 2030, making it one of the country's fastest-growing sources of power

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## **Morrison Foerster Expands Expertise in Energy and Data Center Sectors**

Morrison Foerster has strategically expanded its capabilities in key sectors by hiring new partners specialized in energy and data center transactions. The addition of David Witt, an

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## **NextEra teams up with ExxonMobil to develop 1.2GW**

US power producer NextEra Energy has teamed up with oil and gas major ExxonMobil to build a 1.2GW natural gas power plant to serve the US data

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## **How electricity providers are adapting to new data centres**



Electricity providers are fundamental to the global AI push as they power data centres. They are adapting their business models and approach to resilience to cater for this new demand.

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