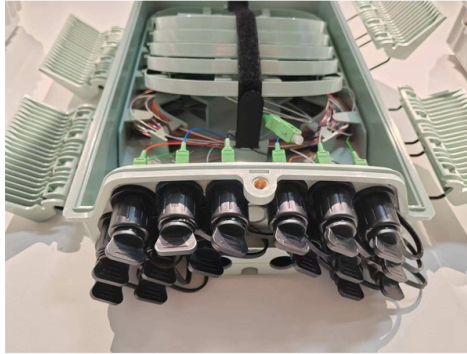


Energy Data Center Achievements



AI Overview

Data centers are achieving significant milestones in energy efficiency, renewable energy adoption, and sustainability leadership worldwide.

Renewable Energy Integration

Many leading data centers have transitioned to 100% renewable energy, setting benchmarks for sustainable operations. For example, SINES DC in Portugal is designed for 1.2 GW IT capacity and leverages seawater cooling alongside Portugal's ultra-clean power grid, positioning it as the largest fully renewable-powered facility once complete. Other notable examples include Switch Citadel Campus in Nevada, USA, and Apple's Viborg Data Centre in Denmark, both running entirely on wind and solar energy while integrating surplus heat into local district heating networks. Facilities like Moro Hub in Dubai and EcoDataCenter 1 in Europe also demonstrate large-scale renewable adoption, combining hydropower, solar, and wind to achieve low PUE and high energy efficiency .

Energy Efficiency and AI Optimization

Data centers are increasingly using AI-driven cooling and energy management systems to optimize power usage. Efficiency improvements are occurring at unprecedented rates, with AI-focused data centers reducing power consumption per task even as overall demand grows. Operators are investing in battery energy storage systems (BESS) and on-site generation to manage peak loads and reduce reliance on constrained grid connections. These measures allow data centers to serve high-performance AI workloads while maintaining sustainability targets

Article Content

Aug 15, 2025

2024 United States Data Center Energy Usage Report

2024 United States Data Center Energy Usage Report | LBL ETA Publications 2024
United States Data Center

Jan 05, 2026

Data Center Power Demand | MIT Energy Initiative

The rapid increase in data center power demand has emerged as a key challenge for hyperscale and colocated datacenters, power

Sep 07, 2025

Gartner Says Electricity Demand for Data Centers to Grow 16% in

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

Jul 24, 2025

Data centers: Catalyzing innovation in energy

Data centers are reshaping the energy sector, straining power systems but also sparking innovation across

Mar 08, 2026

ASHRAE, NEMA and PNNL Release AI Data Center Energy

ASHRAE Press Release: ASHRAE, in collaboration with Pacific Northwest National Laboratory (PNNL) and the

Mar 29, 2026

Managing data centre energy and water use in the AI era

The data centre boom is also causing a stir in local communities, becoming a hot political issue. Along with the

Aug 22, 2025

Geothermal and Data Centers

Geothermal and Data Centers With the growing use of artificial intelligence (AI), the demand for data centers and the large energy

Apr 17, 2026

Gartner Says Electricity Demand for Data Centers to Grow 16% in

Data Center Electricity Consumption to Rise from 448 TWh in 2025 to 980 TWh in 2030 Adoption of AI-Optimized

Mar 11, 2026

Data centres & networks

As the world becomes increasingly digitalised, data centres and data transmission networks are emerging as an important source of

Jul 30, 2025

AI and Clean Energy: Fuelling Amazon's Data Centre Growth

According to Amazon's 2025 Sustainability Report, the company matched 100% of the electricity used in its global

Aug 13, 2025

Energy performance of data centres

As digitalisation accelerates, data centres are a vital and quickly growing infrastructure across Europe and

Aug 22, 2025

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

Dec 13, 2025

Honeywell and LS ELECTRIC Announce Global Partnership to

Honeywell and LS ELECTRIC Announce Global Partnership to Accelerate Innovation for Data Centers and Battery

May 29, 2026

Awards 2025

Ultimately, it's the strength of our judging panel that makes us the data center award-to-win,

Aug 03, 2025

Best Practices Guide for Energy-Efficient Data Center Design

This guide concludes with a section on metrics and benchmarking values by which a data center and its systems energy efficiency

Jan 15, 2026

Top 10: Data Centres Using 100% Renewable Energy

From Portugal to Las Vegas, here are the world's 10 largest data centres powered entirely by renewable energy,

Oct 26, 2025

Measuring energy and water efficiency for Microsoft Datacenters

Microsoft shares the latest figures on energy and water efficiency as part of our journey to meet our sustainability commitments.

Apr 29, 2026

Top 10: Fastest Growing Data Centre Companies

Across every region, the fastest-growing data centre companies are proving that scale and

Jun 17, 2026

Data Center Energy Consumption Statistics & Data (2026)

Explore data center energy consumption statistics and key trends. Learn efficiency benchmarks and insights shaping

May 19, 2026

Bloom Energy 2025 Data Center Power Report

According to new Power Report, AI Needs Are Driving Data Centers to Adopt Energy Sources Beyond the Grid |

Jun 30, 2026

Eaton and Siemens Energy join forces to provide power and

This will provide data center owners and developers with choices they don't have at present to enable them to build

Jul 04, 2026

Energy and AI Observatory - Data Tools

The IEA's Energy and AI Observatory provides up-to-date data and analysis on the growing

May 27, 2026

Energy-Efficient Data Centres

The report explores both current approaches and emerging solutions, offering an overview of sustainable data centre

Jan 10, 2026

Google Gemini

Meet Gemini, Google's AI assistant. Get help with writing, planning, brainstorming, and more. Experience

Jan 17, 2026

Review of energy efficiency and technological advancements in data ...

The research, which draws from case studies of effective energy supply systems in data centers, offers useful

Jan 22, 2026

Data Centers | Better Buildings & Better Plants Initiative

Data centers consume about 70 billion kWh of electricity per year in the United States, close to 2% of the nation's

Apr 20, 2026

Data centre electricity use surged in 2025, even with tightening ...

Electricity demand from data centres soared by 17% in 2025, and that of AI-focused data centres climbed even faster

Contact Us

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