

Data Center Energy Demand Trends



Overview

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 technology insights company. 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. Data centers proliferating across the US will require 22% more grid power by the end of 2025 than they did one year earlier and will need nearly three times as much in 2030, according to the most recent forecast from 451 Research, part of S&P Global. Utility power provided to hyperscale, leased and. The fourth industrial revolution is underway, fueled by rapid advancements in AI and cloud computing. In the US, the rapid deployment of new data center capacity is a strategic priority, but there is a major bottleneck: power availability. Headed by Thierry de Montbrial since its founding in 1979, Ifri is a non-governmental, non-profit foundation according to the decree of November. AI workloads consume 2-3× more electricity than traditional cloud computing.



Article Content

2026 Top Six Trends

The Sustainable Energy in America Factbook provides valuable year-over-year data and insights on the American energy transformation.

Data center grid-power demand to rise 22% in 2025, nearly triple by ...

Data centers proliferating across the US will require 22% more grid power by the end of 2025 than they did one year earlier and will need nearly three times as much in 2030, according to the most recent

2026 Data Center Energy Storage Industry Insights Report

Discover how evolving infrastructure demands, AI workloads, and sustainability priorities are reshaping data center energy storage. The 2026

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

AI Data Center Forecast: From Scramble to Strategy

Snap Chart AI Data Center Forecast: From Scramble to Strategy AI demand is expected to spur 16% to 25% annual growth in global IT power capacity through

AI Market Trends 2026: Global Investment, Risks, and

Discover key market trends as AI becomes the central force influencing growth, earnings, geopolitics, and investment strategy across global

AI, Data Centers and Energy Demand: Reassessing and Exploring

The growing energy demands of cloud services first, and now AI workloads (10% of today's data centers electricity demand), have exacerbated this trend. In the future, hyperscale data centers will gain

The Week in Charts | McKinsey & Company

The AI advantage in B2B pricing Data and analytics have long been crucial to B2B pricing, but new advances in AI are poised to reshape pricing

2026 Renewable Energy Outlook: Trends, Challenges & Opportunities

Explore 2026 renewable energy trends: battery storage growth, policy changes, supply chain strategies, and M& A opportunities. Expert insights for solar, wind & storage sectors.

AI Data Centers and the Global Electricity Surge: Why

The rapid expansion of artificial intelligence is fundamentally reshaping the global data center industry, not through software innovation alone,

AI Data Center Power Surge: Shifting Trends Toward

Executive Summary Rapid growth in artificial intelligence (AI) data center power demand is driving a resurgence in fossil fuel investment,

Data center energy consumption: tracking global power

A data-driven analysis of global data center environmental impact, covering electricity consumption growth, water usage patterns, carbon intensity

AI Data Centers Energy Consumption in 2024–2026:

The growing demand for energy from data centers poses significant challenges for the energy sector. Large, energy-intensive server farms can

AI to drive 165% increase in data center power demand

Goldman Sachs Research forecasts global power demand from data centers will increase 50% by 2027 and by as much as 165% by the end of the

Data Center Renewable Energy: Complete Guide 2025 | Implementation

Complete guide to data center renewable energy solutions. Solar, wind, nuclear & emerging technologies. Implementation strategies, costs, case studies & 2025 trends.

How Data Centers Redefined Energy and Power in 2025

In 2025, AI demand drove data centers toward on-site power, BESS, and nuclear options, while grid delays increased. Here are the top trends that

The UK's data centre boom: growth trends, drivers, and

The UK is experiencing a remarkable growth in its digital infrastructure. Data centres—the facilities that house the servers and computing

Data centres & networks

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

Battery Storage Capacity: Record Growth and Trends in

The report tracks battery energy storage deployments, cell shipments, and emerging demand from artificial intelligence (AI) data centers.

2026 Data Center Power Report

Over one-third of data centers are expected to use 100% onsite power by 2030 and developers increasingly expect permanent onsite generation to emerge as a preferred long-term approach. Next

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

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.araziyahsafety.co.za>

Email: info@araziyahsafety.co.za

Phone: +27 72 418 3692

Address: 123 Rivonia Road, Sandton, Johannesburg, 2196, South Africa

This document is for informational purposes only. Specifications subject to change without notice.

