Data Center Energy Costs



Overview

The capex costs of data-centers are typically $10M/MW, with opex costs dominated by maintenance (c40%), electricity (c15-25%), labor, water, G&A and other. A 30MW data-center must generate $100M of revenues for a 10% IRR, while an AI data-center in 2025+ may need to charge. Tech giants such as Google, Meta, Microsoft, and Amazon are predicted to spend $364 billion this year to accelerate the construction of new data centers across the U. Credit: Nathan Howard/Getty Images The public is paying for the energy infrastructure used to power Big Tech, argues Harvard Law. In its simplest form, a data center is a physical facility that houses and runs large computer systems. data center annual energy use in 2023 (not accounting for cryptocurrency) was approximately 176 terawatt-hours (TWh), approximately 4. As a result, some politicians and activist groups have rallied around the idea that data centers are. It is an intuitive narrative as data centers consume large amounts of electricity, demand is rising quickly, and prices in some regions have increased much faster than inflation in recent years.



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"What Google is doing is ensuring that when we show up, we aren''t putting additional costs on other ratepayers," its head of data center energy told CNBC.

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Data centers accounted for 4% of total U.S. electricity use in 2024. Their energy demand is expected to more than double by 2030.

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