



Meta Harnesses Nuclear Power for its Data Centers

Rising AI energy demands push tech companies to rethink data center power.

Artificial intelligence (AI) lives in the headlines these days, with one news hook being just how much energy it takes to power the data centers that are used to train and run AI models. Since 2020, [Pew Research Center](#) estimates that these facilities' electricity consumption has increased substantially. After hitting a record high in 2024, that consumption is expected to more than double by 2030.

Citing International Energy Association (IEA) data, Pew says U.S. data centers consumed 183 terawatt-hours (TWh) of electricity in 2024, or more than 4% of the country's total electricity consumption.

Not everyone is pleased with the rapid expansion of data centers and the voices behind those concerns are getting louder as the sector continues to grow. "The expansion of data centers has raised questions on several fronts," the organization reports, "including the effect these facilities may have on energy and the environment as the United States seeks to gain an edge in the global AI race."

Filling a Growing Need

According to [MIT](#), there are currently 5,000 data centers nationwide and new ones are "being built every day," it says, both in the U.S. and around the globe. "Often dozens are clustered together right near where people live," it says, "attracted by policies that provide tax breaks and other incentives, and by what looks like abundant electricity."

The [Electric Power Research Institute](#) says that a single large data center can consume as much electricity as 50,000 homes, and that U.S. data centers consumed more than 4% of the country's total electricity in 2023. The rapid growth of AI since then has intensified scrutiny over how data centers are powered.

As these and other questions around energy use and grid capacity intensify, some technology companies are looking beyond traditional power sources to support continued data center growth. Most recently, Meta announced a new deal with TerraPower, Oklo and Vistra to obtain nuclear energy to power its Prometheus AI data center. According to [AI, Data &](#)

[Analytics Network](#), that will be Meta's first multi-gigawatt data center and it's expected to come online this year.

Inking the Deal

Once seen as high-risk, nuclear power is seen as a possible option for fueling tech companies' need for more power to support their AI initiatives. [In its own announcement](#), Meta says the new partnership will support the development of "safer, advanced nuclear reactors" and accelerate the development of nuclear technologies.

"Our agreements with Vistra, TerraPower, Oklo, and Constellation make Meta one of the most significant corporate purchasers of nuclear energy in American history," Joel Kaplan, Meta's chief global affairs officer, said in the announcement. "Nuclear energy will help power our AI future, strengthen our country's energy infrastructure, and provide clean, reliable electricity for everyone."

As part of the agreement, TerraPower will provide funding that supports the development of two new Natrium units that can generate up to 690 MW of firm power with delivery as early as 2032. Oklo will help advance the development of new nuclear energy in Pike County, Ohio (which may come online as early as 2030). And Vistra is supplying roughly 2.1 GW of energy from two of its nuclear power plants in Ohio (Perry and Davis-Besse).

Meta said its partnership with Oklo will help develop up to 1.2 GW of energy in Ohio as early as 2030. "Two years ago, Oklo shared its vision to build a new generation of advanced reactors in Ohio. Today, that vision is becoming a reality," Oklo's CEO said in a [press release](#).

"We have finalized the purchase of over 200 acres in Pike County and are excited to announce this agreement in support of a multi-year effort with Meta to deliver clean energy and create long-term, high-quality jobs in Ohio," he continued. "Meta's funding commitment in support of early procurement and development activity is a major step in moving advanced nuclear forward."