

# Power Surge? Trump, AI Energy Demand and Investment

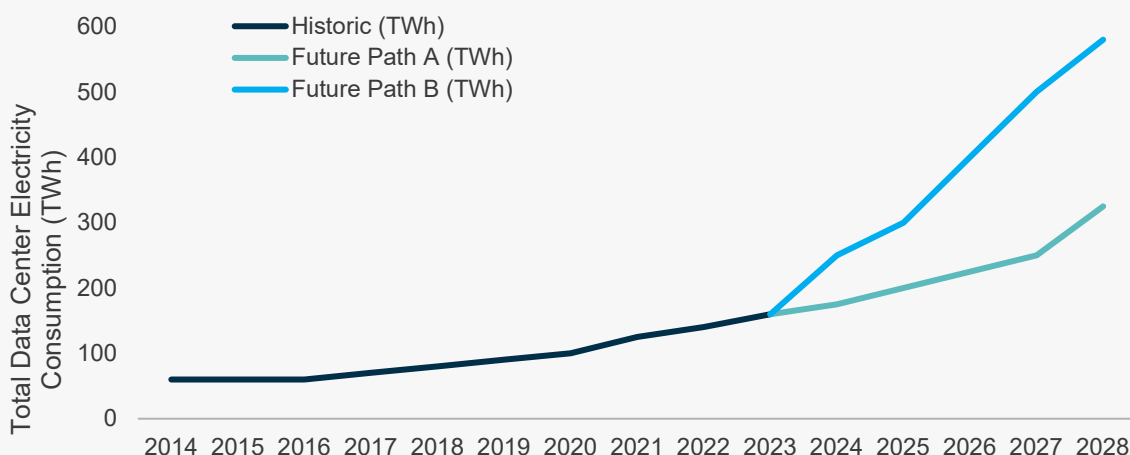
**CONNECTIVES** | MARCH 2025

As 2025 begins, shifting US policies are creating both opportunities and uncertainties for infrastructure investors. In December 2024, the US Department of Energy released a report, authored by the Lawrence Berkley National Laboratory (LBNL), analyzing data center energy demand from 2014 to 2028.<sup>1</sup> The report highlights that data center power demand tripled over the past decade and “is projected to double or even triple by 2028”.<sup>2</sup> This highlights a significant trend with implications for infrastructure, utilities, and the broader investment landscape.<sup>3</sup>

<sup>1</sup> Source: US Department of Energy, Lawrence Berkley National Laboratory, “2024 Report on US Data Center Energy Use,” December 2024.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.



**FIGURE**  
**Total Data Center Electricity Consumption (TWh)**  
**2014 - 2028**

Source: Nokia, “Global Network Traffic Report,” 2023. Wide Area Network (WANs) connect small local area networks (LANs) that include cellular service providers, public and private cellular towers and cloud storage facilities. Wireless communications depend on WANs infrastructure. EB/month is a measure of digital information storage per month where EB is an exabyte of data or one billion gigabytes.

At the same time, the US CHIPS act marked its two-year anniversary in late 2024, bringing in approximately \$400 billion dollars in new investments for domestic semiconductor production.<sup>4</sup> Moreover, OpenAI, Oracle and SoftBank announced Project Stargate --- a \$100 billion dollar investment in AI and related infrastructure during the first week of President Trump's second term in office.<sup>5</sup> The US AI investment boom will demand significantly more power generation.<sup>6</sup>

In one of his first executive orders, President Trump declared a national energy emergency, urging federal agencies to facilitate the expansion of energy production in the US – including electric power generation.<sup>7</sup>

Private and public efforts to expand power production for domestic semiconductor production and advancement of artificial intelligence are continuing to shape the investment landscape as the transition from the Biden to the Trump administration unfolds.<sup>8</sup> While semiconductor manufacturing and AI development remains at the top of mind for most, the Trump administration has appeared to prioritize artificial intelligence development and the wider interests of the US hyperscalers as well as the so-called Magnificent Seven companies.<sup>9</sup>

Utility companies have been natural beneficiaries of the build-out of data centers and semiconductor foundries.<sup>10</sup> US utility stocks returned over 20% in 2024.<sup>11</sup> Power generation will need a variety of fuels and President Trump's energy emergency declaration looks set to support more hydrocarbon production of oil, natural gas, LNG (liquified natural gas), and even coal over the next four years.<sup>12</sup> Although the details remain unclear, legal challenges against a national emergency declaration supported by the National Security Council are expected to deflect legal challenges.<sup>13</sup>

The path of future investments and AI energy demand remains cloudy. Nvidia's AI GPU chips are increasingly energy efficient, and the rapid evolution and refinement of AI programs could alter demand for electricity demand in the future. Each iteration of AI model training has lower costs so that some have argued that large language model training had reached its limits in the summer of 2024.<sup>14</sup>

The release of the Chinese AI app --- DeepSeek R-1---roiled markets in late January 2025 as AI utility stocks and Nvidia suffered steep losses. Investors repriced their expectations for future energy demand and GPUs believing that DeepSeek R1 was developed and trained at much lower costs and power demand.<sup>15</sup>

Markets recovered after a steep sell-off in early February with Meta and Microsoft promising more investment in artificial intelligence and data centers.<sup>16</sup> This renewed confidence suggests that, while AI energy demand projections may fluctuate, AI infrastructure remains a long-term growth area for investors.

<sup>4</sup> Source: The White House, CHIPS Act Two Year Anniversary, August 2024.

<sup>5</sup> Source: Financial Times, G. Hammond et al., "Stargate Artificial Intelligence Project to Exclusively Serve OpenAI," January 23, 2025. Project stargate will also include Middle East AI Fund MGX, Microsoft, Nvidia and Arm. Total investment may reach \$500 billion.

<sup>6</sup> Source: US Department of Energy, Lawrence Berkley National Laboratory, "2024 Report on US Data Center Energy Use," December 2024.

<sup>7</sup> Source: The Hill, R. Frazin, "Trump Says He Will Use Emergency Declaration to Approve More Power for AI," January 23, 2025.

<sup>8</sup> Source: US Department of Energy, Lawrence Berkley National Laboratory, "2024 Report on US Data Center Energy Use," December 2024. See also US CHIPS Act of 2024.

<sup>9</sup> Source: Financial Times, "Tech in 2025: Trump and the Tech Bros," January 20, 2025. The Magnificent 7 companies are: Alphabet (Google), Apple, Microsoft, Meta, Amazon, Nvidia and Tesla. Hyperscalers are megacap technology companies like Microsoft, Amazon and Meta with near monopolies with sufficient cash flow and global presence to outcompete in economies of scale.

<sup>10</sup> Source: Barrons, A. Salzman, "AI Is Reshuffling the Ranks of Utility Stocks, Here Are the Likely Winners," December 26, 2024.

<sup>11</sup> Ibid.

<sup>12</sup> Source: S&P Global, J. Fargo et al., "Trump's Energy Emergency Declaration has Limited Immediate Impact," January 22, 2025.

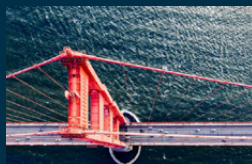
<sup>13</sup> Source: Reuters, J. Queen, "Trump's US Energy Emergency Order Should Withstand Court Challenges," January 22, 2025.

<sup>14</sup> Source: Reuters, K. Hu et al., "OpenAI and Others Seek New Path to Smarter AI as Current Methods Hit Limitations," November 15, 2024.

<sup>15</sup> Source: Financial Times, "DeepSeek Sticks A Fork in Utility Investors' Socket," January 29, 2025.

<sup>16</sup> Source: Business Insider, "Big Tech Isn't Backing Down from Its Big AI Spending," February 1, 2025.

For more information on investing in private infrastructure, learning more about the benefits of infrastructure investing, or to view our 2025 capital markets expectations, please visit the [Insights](#) section of our [website](#) or click the links here to learn more.



### [Investing in Private Infrastructure](#)

<https://meketacapital.com/thought-leadership/investing-in-private-infrastructure/>



### [The Benefits of Infrastructure Investing](#)

<https://meketacapital.com/thought-leadership/the-benefits-of-infrastructure-investing/>



### [2025 Capital Markets Expectations](#)

<https://meketacapital.com/thought-leadership/2025-capital-markets-expectations/>

## Important Information

This document is for general information and educational purposes only and must not be considered investment advice or a recommendation that the reader is to engage in, or refrain from taking, a particular investment-related course of action. Any such advice or recommendation must be tailored to your situation and objectives. You should consult all available information, investment, legal, tax, and accounting professionals, before making or executing any investment strategy. You must exercise your own independent judgment when making any investment decision.

All information contained in this document is provided “as is,” without any representations or warranties of any kind. We disclaim all express and implied warranties including those with respect to accuracy, completeness, timeliness, or fitness for a particular purpose.

We assume no responsibility for any losses, whether direct, indirect, special, or consequential, which arise out of the use of this article. All investments involve risk. There can be no guarantee that the strategies, tactics, and methods discussed in this document will be successful.

Data contained in this document may be obtained from a variety of sources and may be subject to change. We disclaim any and all liability for such data, including without limitation, any express or implied representations or warranties for information or errors contained in, or omissions from, the information. We shall not be liable for any loss or liability suffered by you resulting from the provision to you of such data or your use or reliance in any way thereon.

Nothing in this document should be interpreted to state or imply that past results are an indication of future performance. Investing involves substantial risk. It is highly unlikely that the past will repeat itself. Selecting an advisor, fund, or strategy based solely on past returns is a poor investment strategy.

Past performance does not guarantee future results.

Meketa Capital is an investment advisor registered with the US Securities and Exchange Commission.

Additional information about Meketa Capital LLC is available at <https://adviserinfo.sec.gov>