TCW

INSIGHT

FEATURED INSIGHT

America's Thirst for Power: More Than Just Data Centers

ELI HORTON | **VARUN CHINTALAPATI** | JULY 2025

KEY TAKEAWAYS

- Although hyperscalers and data centers dominate the headlines about the U.S. need for more power, nearly three-quarters of the demand is driven by reindustrialization, reshoring of manufacturing, and the broader electrification of the economy – creating new opportunities for investors
- Industrial power demand in the U.S. is rising for the first time in decades, driven by a structural shift in onshoring, a rebuilding of the country's energy system and grid, and the electrification of industrial processes
- As power demand accelerates and new generation struggles to keep pace, tighter supply is driving price increases of up to 20% in some regions – significantly improving the economics of power generation and critical grid solutions and equipment

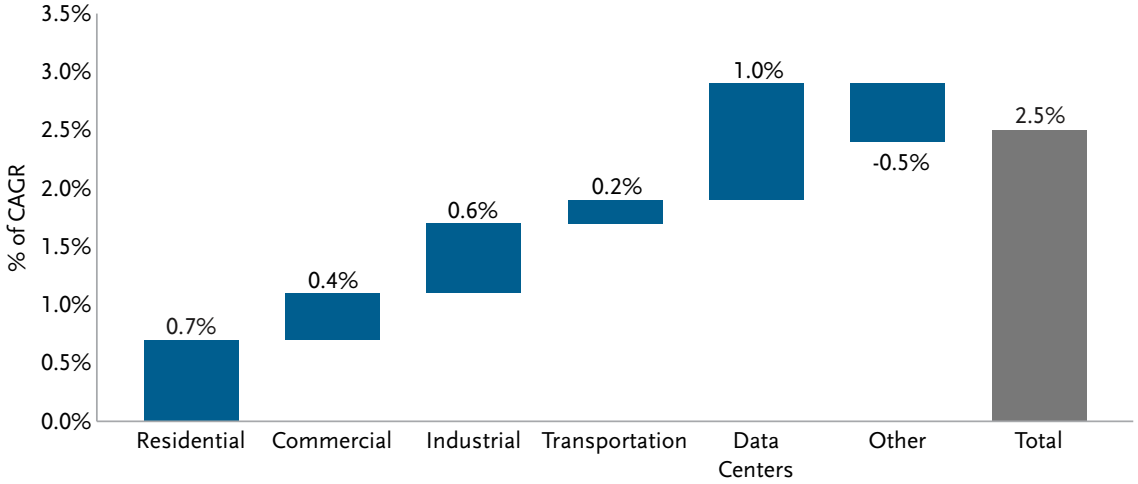
After decades of relatively flat growth, U.S. power demand is now growing at a remarkable rate. This growth is being driven by multiple structural drivers of electricity demand. While data centers dominate media coverage, they only account for roughly 30% of projected annual demand growth through 2030, and just about 10% of total power consumed in 2030. (See Figure 1.) The remaining 70% of the projected growth (and 90% of total power consumption in 2030) represents underappreciated demand from reindustrialization, and the increasing electrification of transportation, and residential and commercial spaces.

Eli Horton
Managing Director
Portfolio Manager
Equities

Varun Chintalapati
Assistant Vice President
Sustainable Investment Group

2025-1937 Exp. 08/31/2026

Figure 1: U.S. Annual Power Demand Growth Through 2030



Source: Goldman Sachs, U.S. EIA

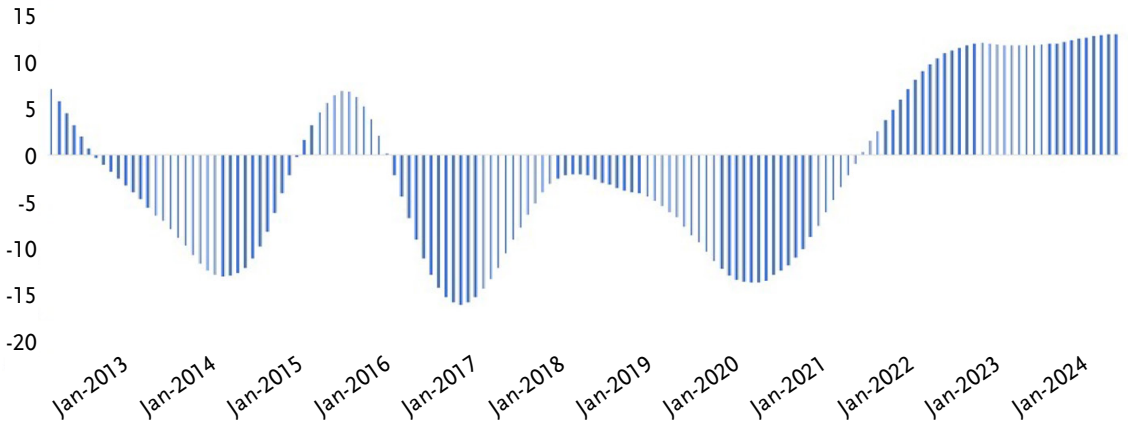
Driver #1: Reindustrialization

U.S. annual industrial power demand peaked in 2000 and has since declined 4% in aggregate, stabilizing at around 1,000-terawatt hours (27% of total U.S. demand) due to the large-scale offshoring of manufacturing during the height of globalization. This trend is now reversing as manufacturing increasingly returns to the U.S., driven by a prioritization of supply chain resiliency and security and bipartisan support.

Since January 2021, $1.8 trillion of investments across 600 mega projects (projects that are valued at more than $1 billion) have been announced in North America. Importantly, only 15% of these projects have commenced[1], leaving more than $1.5 trillion of projects slated to start in the coming years.

This mega-project backlog alone is roughly ten times the amount of annual manufacturing construction projects, which averaged more than $150 billion per year between 2020-2024, and is well above the $80 billion per-year level seen between 2014-2019[2], reflecting reshoring activity, and demand for semiconductors and petrochemicals.[3] U.S. industrial power consumption is now expected to grow as much as 3% annually through 2035 as companies prioritize local manufacturing and migrate away from complex and less resilient global manufacturing alternatives. (See Figure 2.) Hyundai, for example, recently announced a $21 billion investment in the U.S. from 2025-2028 to expand automobile production, increase onshore production of automotive components and steel, and invest in future technologies and U.S.-based energy infrastructure projects.

Figure 2: U.S. Manufacturing Capacity Additions – Month-Over-Month (bps)



Source: U.S. Census Bureau, Morgan Stanley Research

2025-1937 Exp. 08/31/2026

Driver #2: Residential and Commercial Electrification

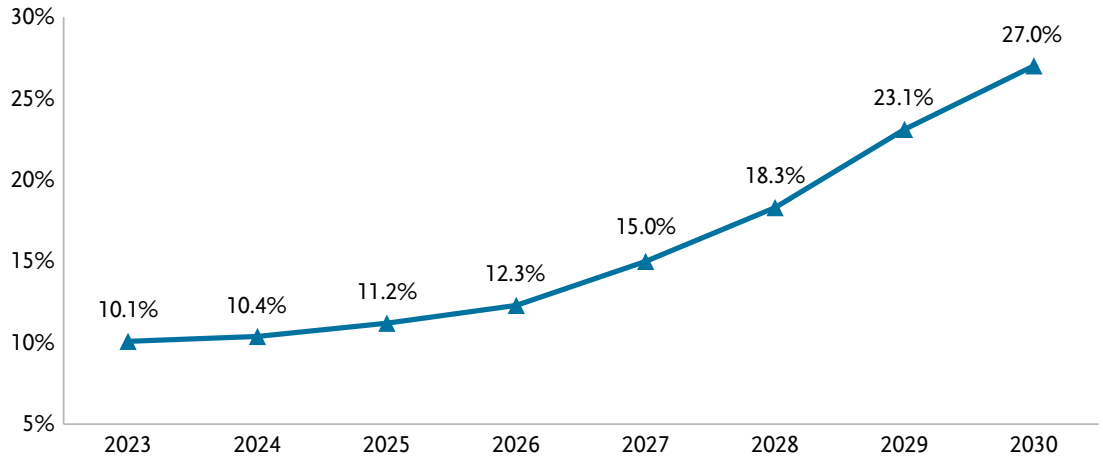
Everyday electrification is becoming a major contributor to rising electricity demand, driven largely by economic and efficiency gains. Consumers and businesses are increasingly adopting electric heat pumps, cooking appliances, and other electric technologies because they offer lower operating costs, reduced maintenance, and access to incentives. Heat pumps, in particular, are seeing rapid sales as a cost-effective solution for both heating and cooling, especially in regions with volatile fuel prices or aging HVAC infrastructure. Similarly, the growing use of air conditioning, electric cooking appliances, and other technologies is steadily increasing baseline electricity consumption. These shifts reflect a broader trend toward electrification that is reshaping long-term power demand across residential and commercial sectors.

The economic case for electrification is also being reinforced by evolving utility incentives, declining technology costs, and changing market dynamics. Utilities nationwide are providing rebates, time-of-use pricing, and demand response programs to encourage adoption of electric technologies and efficient energy use. At the same time, the cost of heat pumps, electric vehicles (EVs), and electric appliances continues to decline, making them increasingly affordable and appealing. These trends signal a broader transformation in energy consumption, positioning electricity as a key driver of cost savings, resilience, and operational efficiency.

Driver #3: The Electrification of Transportation

EVs are projected to increase their share of the U.S. retail auto market from roughly 10% in 2024 to 27% by 2030, supported by declining component costs, improved battery ranges, faster charging speeds, and expanded infrastructure for charging. (See Figure 3.) While federal policy shifts have introduced some uncertainty, state and local incentives – along with infrastructure investments – continue to drive steady progress in EV adoption, albeit at a slower pace than previously projected.

Figure 3: U.S. Retail EV Market Share Outlook



Source: : Bloomberg NEF. Note: Electric vehicles include battery-electric and plug-in hybrid vehicles.

EV adoption is expected to significantly increase residential and commercial electricity load growth, representing approximately 7% of total projected load growth through 2030. It can also intensify load volatility and create localized surges in electricity demand because charging tends to be highly concentrated in the evenings and at specific locations, such as homes and public charging stations. This pattern is already prompting utilities and grid operators to invest in grid hardening equipment, smart charging infrastructure, and other localized grid upgrades to manage peak loads and ensure reliability as adoption scales.

2025-1937 Exp. 08/31/2026

The Investment Opportunity

The transformation underway in U.S. power demand is creating a generational investment opportunity across multiple asset classes. Demand is rising faster than supply, and electricity prices are projected to rise by up to 20%[4] in the near future. This imbalance is creating unprecedented bottlenecks and dramatic shifts in value creation and unit economics. Increasingly, these investment opportunities are found in "old economy" companies that operate within industries such as utilities, power generation equipment, electrical transmission and distribution equipment, critical materials, and other infrastructure. Not only is the fundamental investment case compelling on its own, but many of these businesses have been neglected by investors and markets over the past decade or two, creating an environment for a new class of market leadership to arise.

The U.S. electric grid is at a critical juncture as it faces mounting challenges with reliability and resiliency, combined with an urgent need to add generation capacity to match the structurally growing need for electricity. This is resulting in a paradigm shift in how 24/7 power sources such as nuclear and natural gas are being valued by the market while also driving trillions of dollars of capital investment into transmission, distribution, and other electrical equipment industries. Despite this tidal shift, we believe that many of the old economy beneficiaries remain underappreciated by markets fixated solely on AI alone – this mispricing provides opportunity.

From a credit perspective, these supply-demand dynamics are improving the fundamentals for project finance, infrastructure debt, and asset-backed lending tied to energy efficiency upgrades, distributed energy systems, and grid modernization. Utilities and corporates seeking to finance capital-intensive upgrades — from smart meters to back-up generation — are increasingly turning to private credit markets for flexible, scalable capital.

The U.S. power ecosystem is entering a multi-year capex super cycle, creating a broad and diversified investment landscape across infrastructure, technology, industrials, and utilities, spanning credit, equity, and private markets. While AI dominates headlines, the structural growth from manufacturing, reindustrialization, and widespread electrification is driving the core economics of U.S. power and the resulting investment opportunities. ■

1 Eaton Corporation Investor Day (March 2025)
2 Edward R Zarenski – Construction Outlook 2025 (February 2025)
3 Dodge Construction Network – Outlook 2025 (November 2024)
4 American Clean Power – U.S. National Power Demand Study (March 2025)

515 South Flower Street | Los Angeles, California 90071 | 213 244 0000 | TCW.com

2025-1937 Exp. 08/31/2026