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Macro Memo
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The U.S. Electrical Grid Supercycle

If you've ever watched a long line of dominoes fall, you know the significance isn't in the first tile, but rather it's in the momentum that follows. That is the essence of a **second-order effect:** a consequence of a consequence, the kind of shift that quietly gathers force until it eventually defines an entire era. For the U.S. electrical grid, globalization was the first domino.

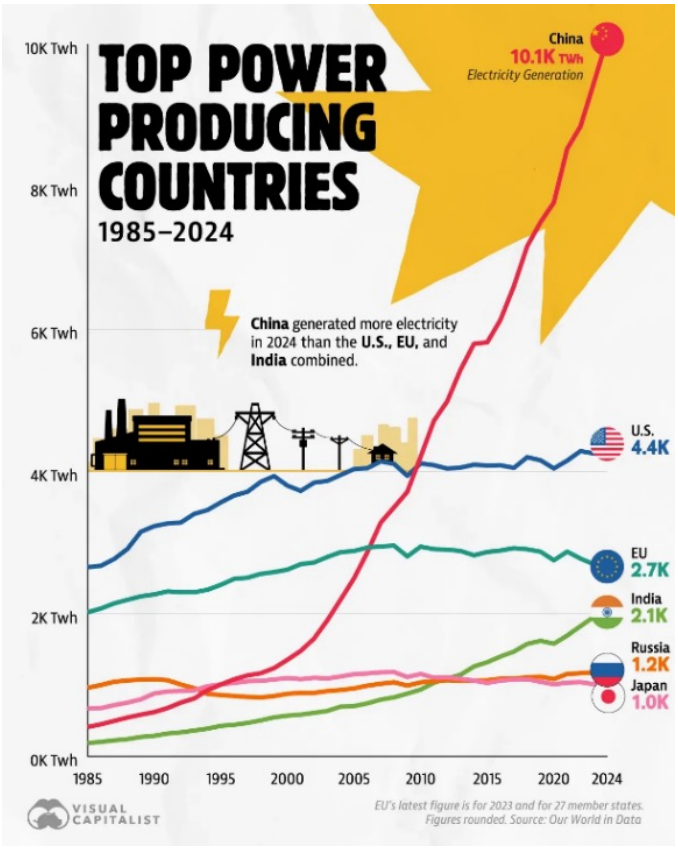
Beginning in the 1980s, the United States offshored a substantial portion of its manufacturing base in pursuit of lower costs and greater efficiency. That initial move achieved many of its intended benefits, but it also triggered subtle and long-lasting ripple effects. As production moved overseas, domestic industrial electricity demand flattened. With less demand pressure, America's power-generation capacity stalled for nearly two decades. Meanwhile, China aggressively expanded, doubling its electricity production and positioning itself competitively in industries that thrive on abundant power, including artificial intelligence, data centers, and advanced manufacturing.

Only now, as AI's energy appetite increases dramatically and the U.S. attempts to reshore critical supply lines, is the full impact of those second-order effects coming into focus. The dominoes that began falling decades ago have led us directly to today's grid bottleneck.

How Globalization Set the Stage

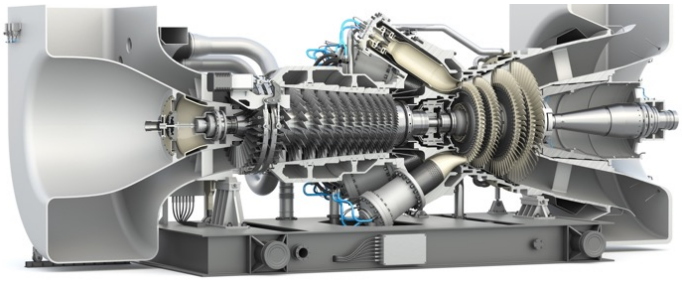
Globalization was built on the premise of cooperation, efficiency, and cost reduction. Offshoring production fulfilled those goals in many ways, but it also left the U.S. with far less need to expand domestic power capacity. With fewer factories operating stateside, the economic justification for major electricity-generation projects weakened, causing the U.S. grid to grow at a much slower pace. China, on the other hand, invested heavily in expanding its power infrastructure (see chart below[1]), creating a widening gap that now gives it an edge in power-intensive industries[2].

This divergence is especially relevant today. As the U.S. tries to repatriate key supply lines and rebuild industrial capacity, it is doing so from a grid that was never scaled to support such ambitions. A country cannot expand energy intensive industry without expanding the power systems that support it and, at the moment, America's grid simply isn't built for the demands being placed on it.



The New Reality: America's Grid Is Maxed Out

The result of this long-term stagnation is a grid that is now strained at the exact moment demand is accelerating. AI companies are constructing data centers at a very rapid pace, each one requiring enormous and continuous electricity. Many new facilities are being told they may wait 3-5 years before they can connect to the grid[3]. Manufacturers hoping to reshore production are increasingly finding themselves competing with AI hyperscalers for available power, an imbalance that complicates national economic goals. The system is facing pressure from multiple directions at once, and because the challenge is deeply multifaceted, it cannot be addressed with a single solution or quick policy shift.



Bottleneck #1: Power-Generation Delays

A critical constraint lies in the production of industrial gas turbines, which form the backbone of many large-scale power plants. Today there is a 3-7 year backlog for these units. Manufacturers simply cannot produce them fast enough to keep up with rising demand. Even with political support and economic motivation, power plants cannot be built without the equipment required to run them. This mismatch between demand and production capacity is a central reason why the grid cannot expand quickly.

Bottleneck #2: Transmission & Permitting Challenges

Even when generation is available, the U.S. faces significant challenges in transmitting that power to where it is needed. Transmission lines require complex permitting, multi-state coordination, and significant capital investment. Delays in regulatory approval, higher equipment costs, and differing regional priorities all contribute to slow progress. Much of the current grid infrastructure is focused on maintaining and replacing aging components rather than expanding capacity, meaning the system is constantly playing catch-up instead of getting ahead. These layers of complexity make grid expansion a slow and cumbersome process; one that cannot be resolved overnight.

Why This Will Be Addressed

While the challenges are significant, the likelihood of meaningful action is equally high. The grid is no longer just a matter of domestic convenience; it is now tied directly to national security, technological competitiveness, and America's ability to participate in the global AI race. The U.S. cannot effectively reshore critical supply lines or support next-generation industry without a stronger, more resilient power infrastructure. As Gene Kranz famously declared in Apollo 13, "Failure is not an option." Policymakers increasingly recognize this reality, and it is reasonable to expect federal and state governments to pursue a combination of regulatory reform, targeted subsidies, tax incentives, and expanded industrial-policy initiatives to accelerate the grid-modernization process.

The scope of the challenge strongly suggests that the effort will be long-term. Large-scale infrastructure cycles often unfold over years, if not decades, which means the investment implications will extend across multiple market cycles.

The Investment Implication

For months, we have discussed the emerging strength in hard assets, particularly commodities. Infrastructure development is the natural extension of this trend. Hard assets provide the raw materials (steel, copper, rare earths, and other inputs) that infrastructure developers rely on when building the physical systems of the economy. Once these inputs are refined, they are turned into real-world capacity through projects such as power plants, transmission lines, substations, and electrical-grid upgrades.

This pairing of hard assets and infrastructure is the foundation of long-duration investment trends. As demand for power infrastructure accelerates, so does the demand for the materials and companies that support that development. In our view, these dynamics suggest that the U.S. is in the early innings of a significant infrastructure super-cycle, one that aligns with broader national priorities and structural economic needs.

What This Means for Investors

Infrastructure modernization is not a short-term theme. It is a multi-year, policy-driven evolution that responds to structural constraints rather than market cycles. The growing electricity demands of AI, the strategic push to reshore key industries, and the increasing importance of national security all point in the same direction: the U.S. will need to expand and modernize its grid. This alignment of economic, political, and technological priorities is rare, and it creates an environment in which long-term capital spending becomes both necessary and likely.

As these forces continue to unfold, infrastructure-related investments, and the hard assets that support them, may play an increasingly important role in diversified portfolios. If you would like to explore how these themes may fit into your broader investment strategy, we are always available to discuss the opportunities and considerations in greater detail.

[1] Pallavi Rao and Sabrina Lam (2025) – "Ranked: Top Countries by Annual Electricity Production (1985–2024)" Published online at VisualCapitalist.com. Retrieved from: 'https://www.visualcapitalist.com/ranked-top-countries-by-annual-electricity-production-1985-2024/' [Online Resource].

[2] Wei, Lingling. "China, Betting It Can Win a Trade War, Is Playing Hardball With Trump." The Wall Street Journal, 14 October 2025, https://www.wsj.com/world/china/china-trade-war-trump-talks-25c50136?st=dtjxkj&reflink=desktop-webshare_permalink.

[3] Gittelsohn, John; Ma, Michelle. "Data Centers in Nvidia's Hometown Stand Empty Awaiting Power." Bloomberg. 10 November 2025. https://www.bloomberg.com/news/articles/2025-11-10/data-centers-in-nvidia-s-hometown-stand-empty-awaiting-power?utm_source=website&utm_medium=share&utm_campaign=copy

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