Coal Op-eds: 123 YTD

- May 27: <u>DC Journal</u> (D.C.)
- May 28: Hanford Sentinel (Calif.)
- May 28: <u>Boston Herald</u> (Mass.)
- May 28: <u>Detroit News</u> (Mich.)
- May 28: Nashua Telegram (N.H.)
- May 28: Huntington Herald Dispatch (W.Va.)
- May 28: Santa Maria Times (Calif.)
- May 28: Charleston Gazette-Mail (W.Va.)
- June 3: Real Clear Energy (D.C.)
- June 4: Real Clear Energy (D.C.)
- June 11: Pottstown Mercury (Pa.)
- June 12: <u>Bakersfield Californian</u> (Calif.)
- June 13: <u>Salem News</u> (Ohio)
- June 13: <u>Lisbon Morning Journal</u> (Ohio)
- June 13: <u>East Liverpool Review</u> (Ohio)
- June 13: <u>Beckley Register Herald</u> (W.Va.)
- June 13: Times West Virginian (W.Va.)
- June 13: <u>Johnstown Tribune Democrat</u> (Pa.)
- June 13: <u>Bluefield Daily Telegram</u> (W.Va.)
- June 13: Marietta Daily Journal (Ga.)
- June 14: <u>Martins Ferry Times Leader</u> (Ohio)
- June 14: Yahoo News (USA)
- June 14: <u>Deseret News</u> (Utah)
- June 14: <u>Grand Junction Daily Sentinel</u> (Colo.)
- June 15: <u>Las Vegas Sun</u> (Nev.)
- June 16: <u>Bryan Times</u> (Ohio)
- June 16: <u>Jacksonville Journal Courier</u> (Ill.)
- June 16: MSN.com (USA)
- June 16: <u>Forbes</u> (N.Y.)
- June 17: Montana Standard (Mont.)
- June 17: <u>Helena Independent Record</u> (Mont.)
- June 17: Ravalli Republic (Mont.)
- June 17: <u>The Missoulian</u> (Mont.)
- June 17: <u>Billings Gazette</u> (Mont.)
- June 17: <u>Provo Daily Herald</u> (Utah)
- June 17: <u>Longview News Journal</u> (Texas)
- June 17: West Virginia News (W.Va.)
- June 19: Wilkes Barre Times Leader (Pa.)
- June 20: Maryland Daily Record (Md.)



China Vs. U.S.: AI Supremacy Requires Reliable Electricity Jude Clemente June 16,2025

What McKinsey & Company <u>calls</u> "The Race to Power AI" boils down to the emerging struggle between the U.S. and China for supremacy in artificial intelligence (AI) and the capabilities of its associated data centers. General estimates are that AI will increase U.S. power demand 10-20% over the next five to seven years alone. In a new report, <u>Rocket Fuel for America's AI Moon Shot</u>, Dan Turner, Executive Director of <u>Power the Future</u>, has compared the situation to the space race between the U.S. and Russia in the 1950s and 1960s: "The race to develop artificial general intelligence will be the most significant economic and national security clash between the world's great powers over the next generation."

While the U.S. has a clear lead in the development of both AI and data centers, China has demonstrated its commitment to be self-reliant on these new technologies to broaden its global reach for economic, military, and national security reasons. AI requires 24/7 power, and China is rapidly putting a plan in place to assure reliable electricity that will attract and support data centers. The U.S. does not have a coherent and continuing energy plan of any type. China's central planning allows for development and sustainability, while the U.S. approach to energy changes every four years. The fact that organization and foresight are crucial in energy planning is demonstrated by energy thinker Robert Bryce's warning: China has a chokehold on about three dozen key elements in the Periodic Table, with an average market share of around 70% for each.

China has recommitted to its reliance on coal power. In 2024, construction began on over 94 Gigawatts (GW) of coal capacity – the most since 2015 and more than half of the U.S. existing coal fleet. The Global Energy Monitor reports that China has 58 GW of coal announced, 158 GW in permitting, 204 GW under construction, and 1,171 GW operating, for a grand total of 1,591 GW of coal. This is more than the entire electricity generation capacity of the EU and Japan combined (read those two sentences again). Two points need to be emphasized: (1) the Chinese coal fleet is one of the youngest, most efficient in the world, so the existing coal units still have many decades of operation and (2) many of the mega plants the Chinese are bringing online are supercritical or ultra-supercritical facilities which produce significantly fewer emissions than standard coal plants. China leads in building advanced coal plants and is home to the most efficient units in the world.

In stark contrast, the U.S. seems intent on wiping coal-based electricity from the energy landscape. Over 300 coal plants have closed since 2010, and coal generation has declined from 45% of the Nation's power to 16% today. Most importantly, just published in April, the 2025 Annual Energy Outlook (AEO) by the U.S. Energy Information Administration (EIA) projects that from 2025 to 2035 coal generating capacity will plummet from 164 GW to only 3 GW. In concert, coal generation will decline 93% in just 10 years. This seems foolish since the U.S. has some 25-30% of the world's coal, which is even more than China. And we already know that the U.S. natural gas industry is ready to meet this great challenge: "Chevron exec says data center gas plans 'moving very quickly."

Lest one think the U.S. is relying on new nuclear plants to serve the baseload needs of data centers, the 2025 AEO projects both nuclear capacity and generation will *decline* by 2040. As Dan Turner at *Power the Future* points out, the Nuclear Regulatory Commission is a model of bureaucratic inefficiency. Since 1990, only five applications have been approved and only two new plants have been built: the Vogtle reactors in Georgia.

Given this troubled history over the past 35 years, it is difficult to see nuclear making a major contribution in the next two decades unless excessive bureaucratic hurdles are rapidly eliminated. Reality check: "Trump's Nuclear Plan Faces Major Hurdles." Meanwhile, China currently has 58 operable reactors with a total capacity of 60 GW. At least 30 reactors, with a total capacity of 34 GW, are under construction. When it comes to winning the AI race, China means serious business: "China Unveils the World's First AI-Powered Underwater Data Center!"

To be fair, the EIA's AEO does project substantial new capacity by 2040 but most of it is intermittent and non-baseload solar and wind of clear limited use to data centers without a large amount of backup batteries. And the caveat: the China chokehold looms large over this forecast: China controls 75% of solar panel manufacturing, 60% of the world's turbine production capacity and confirmed by a May 21 headline from an EIA press release: "China dominates global trade of battery minerals."

There is no doubt that President Trump has taken positive steps on both coal and nuclear, but the familiar issue of a sustainable plan remains. The President's term ends in only three and a half years. After that, is it back to business as usual while China's baseload coal plants accommodate for the next generation of data centers.

And finally, we must remain clear for those saying that we should rely on just wind and solar here in the U.S. This is a provably dangerous position that cannot be taken seriously. We already know that the recent power outage in Spain and Portugal has raised questions about the reliability of renewables.



Consumers shouldn't subsidize the energy needs of data centers Matthew Kandrach June 20, 2025

Driven by the explosive growth of artificial intelligence and data centers, U.S. electricity demand and electricity prices are rising rapidly. Dozens of new data centers, each with the electricity needs of a small city, are gobbling up the nation's power supply.

Forecasters see U.S. electricity demand growing 25% by 2030, and nearly 80% by 2050. In some regions of the country, it will be far more and even faster. The nation's largest regional electricity grid, PJM Interconnection, which stretches from Virginia to Illinois, expects that, by 2030, new data center power demand will equal the electricity needs of 20 million homes.

This onslaught of new demand is coming far faster than utilities can add new generating capacity and energy infrastructure. It's also putting immense pressure on electricity prices, the prices paid not just by tech companies but by the average household as well.

Electricity prices could jump 15% to 40% in just the next five years, according to a recent forecast. By 2050, prices might even double. And these spikes are coming on top of an existing jump in prices. According to an analysis from the Department of Energy, retail electricity prices have increased faster than the rate of inflation since 2022, rising 13%.

Amazon, Google, Meta, and other tech giants are talking a good game about next-generation nuclear power plants and new natural gas generation to meet their enormous, around-the-clock power needs. But it will be years before those plans are realized. In the near term, they're buying up the very electricity that supplies U.S. households.

Grid operators and utilities are trying to add new power capacity to meet surging demand, but the cost of doing so is being socialized across the entire ratepayer base. Effectively, grandma is being asked to pay more to accommodate the needs of some of the world's wealthiest companies.

Several states are trying to advance legislation to ensure that ratepayers aren't stuck with these costs. But the genie is largely out of the bottle. To shield consumers, we're going to need smart policy. We're also going to need these tech giants to step up to the plate.

We need pragmatism to meet this urgent need for more electricity. The place to start is by ensuring that today's existing baseload power plants stay online, and aren't forced into early retirement by misguided policy.

While data center developers have signed deals to keep nuclear power plants running, and to even bring mothballed reactors back online, they should take the same exact approach with America's coal fleet.

Dozens of operating coal plants are being pushed offline to comply with state renewable energy mandates. The Trump administration is beginning to step in, to keep key plants operating in markets already desperately short of power. But tech companies need to get into the mix.

Data center developers should match their promises of building new power generation with immediate efforts to keep existing power plants running. If tech companies are determined to shape our future, they should ensure we have the energy affordability bridge to get there.

The AI and data center buildout is being called a new industrial revolution and an enormous economic opportunity. That may be true, and there's good reason to want that revolution to happen here rather than in China. But we must ensure that winning the AI race doesn't mean swamping the average American household with ever-rising energy costs and power shortages.

Matt Kandrach is the President of Consumer Action for a Strong Economy.



Coal Is the New Bridge Fuel Bernard Weinstein June 3, 2025

Once again, the consensus of government and private <u>weather forecasters</u> is that this coming summer will witness above-average temperatures in most parts of the United States. Already, warnings have been sounded that America's power grids will be under great stress—as has been the case for a number of years—with a strong probability of blackouts and brownouts in

some parts of the country. For example, the North American Electric Reliability Corporation's (NERC) summer <u>reliability assessment</u> published on May 18 cited the 15-state Midcontinent Independent System Operator (MISO) as the regional grid most likely to see a meltdown this summer.

NERC's warning proved to be prescient. On May 25, more than 100,000 customers in and around New Orleans lost power for most of the day when electricity demand exceeded supply, despite an emergency order from the Department of Energy several days earlier to keep a 1,560 megawatt coal plant in Michigan on-line that was slated for closure by the end of May. ERCOT, the Texas grid operator, has also warned of possible outages this summer due to potential low solar and wind energy availability during peak demand.

The strains on America's power grids are easy to explain. After remaining relatively flat for a decade, electricity demand is now projected to jump 50% over the next 10 years. Investments in server farms, artificial intelligence, crypto-mining, and a revival of manufacturing activity account for most of this growth. For example, a <u>recent study</u> by the Berkeley National Laboratory found that data centers consumed 4% of total U.S. electricity in 2023 but will account for 12% of power demand by 2028.

At the same time, construction of new base-load power plants—natural gas, nuclear, and coal—has plummeted. Driven by federal, state, and local tax incentives, wind and solar have accounted for the lion's share of new installed generation in recent years. The problem, of course, is that these power sources are intermittent, which is why New Orleans lost electricity in May and why the Iberian Peninsula suffered a blackout in April.

Although several states—most notably Texas—have adopted <u>programs</u> to encourage new construction of natural gas plants, for the near term it's critical to keep the nation's remaining coal plants online.

Since 2010, 300 "always on" coal-fired power plants have been closed, reducing its share of generation from 45% to 16% nationwide. Only about 200 remain on the regional grids today.

The Trump administration has taken several steps to enhance power grid reliability and resiliency by keeping these coal plants on-line, including a series of <u>executive orders</u> signed by the President in early April. One of these orders allows a number of aging coal plants slated for closure to continue producing power.

Not surprisingly, these actions have energized <u>environmentalists</u> who remain committed to shuttering the remaining coal fleet and banning the construction of any new fossil fuel power plants. But the renewables-ornothing approach they favor is crashing into a new energy reality. Not only is power demand poised to surge but building and connecting wind and solar plants, as well as the infrastructure needed to integrate them into the grid, is proving increasingly costly and challenging. Coupled with higher interest rates and supply chain challenges, local opposition to wind and solar farms, as well as new transmission lines, is having a significant impact on the speed and scale at which new generation is entering service.

The era of tearing down existing, well-operating power plants before reliable replacement capacity is built and connected to the grid is over. The ondemand power plants already in service are more valuable than ever. While coal's long-term future remains in question, its near-term importance is clear. Our existing fleet of coal plants can help us manage the transition to a more reliable and resilient energy future as we build the next generation of base-load resources.

Bernard L. Weinstein is retired associate director of the Maguire Energy Institute at Southern Methodist University, professor emeritus of applied economics at the University of North Texas, and a fellow of Goodenough College, London.



Could Spain's Blackout Happen in the United States? Terry Jarrett May 27, 2025

A sudden <u>blackout</u> across Spain and Portugal earlier this month left 50 million people without electricity. While the cause of the outage is unclear, a leading culprit appears to be poorly integrated wind and solar resources. What's clear is that, in an increasingly digital age, ensuring affordable and reliable power is more critical than ever.

The Spain-Portugal blackout came as U.S. power regulation authorities sounded an alarm about the safety of America's electric grid and power supply. The North American Electric Reliability Corporation (NERC) — the nation's grid reliability regulator — <u>warned</u> that parts of America's power grid could fail during a heatwave this summer.

Why is America's power grid looking so shaky? And could Spain's massive blackout happen here?

Each summer, U.S. electricity demand soars. And when Americans crank up their air conditioners amid scorching summer heat, regional utilities must meet that hefty additional demand.

The problem is that there might not be enough electricity to go around.

The United States is suddenly using a lot more electricity than before. Electric vehicles, new manufacturing plants, and an exponentially growing array of data centers — which support the digital needs of cell phones, web browsers and AI systems — are gobbling up power. Power demand is growing so fast that, in the past year, NERC <u>found</u> America's peak electricity needs grew by a staggering <u>10 gigawatts</u>. That's more than double the growth seen between 2023 and 2024.

Surging demand is also colliding with the remnants of a regulatory agenda that aimed to wipe out America's coal power plant fleet and make it impossible to build coal and natural gas power plants. While the Trump administration has worked to undo this misguided regulatory blitz, grid operators have lost essential dispatchable power plants that work on demand. They're now increasingly reliant on renewable power systems subject to the weather's whims.

Because of this, NERC says that grid operators "face challenges in meeting higher demand this summer with a resource mix that, in general, has less flexibility and more variability."

The greatest threat to grids nationwide will be heat waves when demand spikes. Windless, scorching summer days — and evenings when solar power disappears — could leave grids alarmingly short of supply.

NERC's summer reliability warnings preview a growing risk. A few months ago, NERC <u>warned</u> in a long-term reliability assessment that more than half of North America faces a risk of energy shortfalls in the next five to 10 years as rising demand collides with the loss of traditional power plants.

The nation's energy regulators recognize there's a power supply emergency. Federal Energy Regulatory Commission Chairman Mark Christie has <u>observed</u> that America is now "losing dispatchable generation at a pace that is not sustainable, and we are not adding sufficient equivalent generation capacity."

The math is clear: The United States cannot afford to lose more existing power plants as we scramble to meet rising demand. The first place to start in addressing our looming power shortfalls is to ensure we don't make our self-imposed hole deeper.

A power supply operating on the margins is a recipe for disaster. The Iberian blackout was a timely reminder of the risks we face. It's time to heed the warnings of our grid operators and reliability regulators and rebuild solid, long-term electricity generation while there's still time.

Terry was appointed to the Missouri Public Service Commission in 2007. During his six years as a State utilities regulator, Terry became a nationally-recognized leader in energy, utility and regulatory issues. He served as Chairman of the National Association of Regulatory Utility Commissioners' (NARUC) Committee on Critical Infrastructure. During his tenure, he focused on cybersecurity issues and led NARUC to be one of the major organizations influencing national cybersecurity policy for critical infrastructure.