Coal Op-eds: 133 YTD

- June 25: Frankfort State Journal (Ky.)
- July 15: <u>DC Journal</u> (D.C.)
- July 15: <u>Daily Jefferson County Union</u> (Wis.)
- July 16: <u>Boston Herald</u> (Mass.)
- July 16: <u>The Daily Courier</u> (Pa.)
- July 18: The Dubuque Telegraph Herald (Iowa)
- July 20: <u>Las Vegas Sun</u> (Nev.)
- July 21: Real Clear Energy (D.C.)
- July 22: Pottstown Mercury (Pa.)



AI is upending the job market, but this industry is hiring Rich Nolan July 22, 2025

Today's college graduates face a startling reality. Many of the jobs they were hoping for are rapidly disappearing because of AI (artificial intelligence).

As Mike Rowe of "Dirty Jobs" fame recently observed, "We've been telling kids for 15 years to learn to code. Well, AI is coming for the coders." Meta CEO Mark Zuckerberg agrees. He predicts that most Meta code will be written by AI in the next 12-18 months.

The great disruption is here. Many entry-level office jobs — from coders and analysts to researchers and writers — are being eaten by AI.

The unemployment rate for recent college graduates has soared to recession-era levels — even as the overall jobless rates remain low. The weakness in this particular segment of the job market may be a harbinger of the AI tsunami on the horizon. As AI gets smarter and more capable, more complex and experience-dependent jobs are likely to come under pressure as well. And at the speed AI is progressing, that could be a matter of months, not years.

This may all seem downright gloomy, but AI disruption will also create opportunities. And that should encourage students, parents, and guidance counselors to open their eyes to the industries that are growing and need people.

The mining industry is just such a place.

Modern mining is at the very leading edge of American reindustrialization. It provides the critical materials and energy that underpin our economic future and national security. And it needs young people.

Thanks to data centers, semiconductors, batteries, and electric vehicles, America's mineral and electricity demand is soaring. Meeting that demand — and doing so responsibly — requires more American production. It also requires more American mining and the people to make it happen.

Consider copper, the metal of electrification. Global copper demand is projected to nearly double by 2035. By 2050, annual copper consumption is expected to exceed the total amount of copper consumed globally between 1900 and 2021. And that's just annual demand. In just 25 years, we will need to mine more copper than has been mined in all human history.

For electricity, the story is remarkably similar. U.S. electricity demand is exploding, set to jump nearly 80% by 2050. One recent forecast sees demand jumping 128 gigawatts over the next five years — equivalent to adding 80 million homes to America's already overstretched electricity grid.

However, at the very moment this demand is soaring, the U.S. mining industry is struggling to find workers. Many of the industry's best are retiring, or are on the verge of doing so. Tens of thousands of mining jobs need to be filled — jobs that require the tech-savvy, problem-solving skills that young Americans intuitively possess.

From engineers and geoscientists to drillers, drone operators, and the drivers needed for enormous haul trucks, modern mining requires an extraordinarily diverse set of skills. It needs diverse people and perspectives. It needs team members, innovators, and people looking not just for jobs but careers.

Mining is an industry that teaches, that builds competency, and gives employees the opportunity to get out from behind a desk. And it pays well.

The average wage for U.S. miners is \$98,971 a year — fully 30% above the national average. And many mining jobs do not require a college degree, nor are they under threat from AI.

Rebuilding and modernizing America's industrial base from the mine to the assembly line needs today's students and job seekers. While AI may be closing the door on some careers, the door to American mining is wide open.

Rich Nolan is the president and CEO of the National Mining Association.



Why Should We Keep New Mexico's Remaining Coal Plant in Service? It's Essential. Jim Constantopoulos July 21, 2025

Shut down New Mexico's last remaining coal plant (Four Corners Generating Station), environmentalists say, and replace it with renewable energy. But coal is a practical fuel, affordable and dependable. Being generically against coal is no more useful than being generically against electricity. Electricity demand is rapidly rising. Electric vehicles, new AI data centers, and a growing economy simply mean we need more power. And we need reliable power.

While new additions of electricity generation remain dominated by intermittent wind and solar power, keeping what we already have on the grid will be critically important to meeting our energy needs and doing so affordably. Across the country, electricity prices have risen faster than the pace of inflation over the past few years. If we tear down our existing sources of reliable power at the very moment electricity demand begins to soar, even higher prices will be an inevitability.

With everyone I've encountered who is really immersed in energy issues, the common view is that we need every available energy source, ranging from renewables and nuclear power to coal, just to keep the lights on. Frankly, we all tend to take the on-demand delivery of electricity for granted. We shouldn't. In just the past month, power demand eclipsed available supply in Louisiana, forcing the grid operator there to institute rolling blackouts ("load shed") for 100,000 customers on a 90-degree day.

For years, the nation's grid reliability regulators have been warning of emerging problems. In fact, the nation's grid reliability watchdog warned that more than half of the nation could face the threat of blackouts over the next decade if we don't take corrective action to boost our supply of power. This summer, the PJM interconnection grid operator said Maryland is at elevated risk of supply shortages during periods of peak demand. It may be hard to grasp, but we're staring down a power supply crisis years in the making. Now, the collision of rapidly rising power demand with the loss of the nation's coal fleet is coming to a head.

We desperately need the coal plants we have left, and the Department of Energy (DOE) has recognized it. In fact, Secretary of Energy Chris Wright recently issued an emergency order to keep a coal-fired power plant in Michigan running through the summer to bolster the MISO grid, which stretches from Louisiana all the way up through Michigan and Wisconsin. That plant was being forced off the grid 15 years before the end of its life by anti-coal regulatory policy. DOE's position is a simple one: we can't afford to lose existing plants with so many states critically short of power. The looming threat of power shortages is altering the national perspective about coal. Instead of a problem to solve, our coal plants are a critically important reliability backstop that we need as a bridge to our energy future.

For the foreseeable future, new sources of power should come on the shoulders of these reliability bulwarks, not in place of them. Rotating blackouts, rising prices and missed economic opportunities for lack of power are wholly avoidable if we simply embrace the full suite of energy resources at our disposal. Recognizing the ongoing importance of our coal plants is just the place to begin.

Dr. Jim Constantopoulos is a Professor of Geology and the Director of the Miles Mineral Museum at Eastern New Mexico University.



Consumers Shouldn't Subsidize the Energy Needs of Data Centers Matthew Kandrach June 25, 2025

Driven by the explosive growth of artificial intelligence (AI) 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 <u>see</u> 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 — <u>expects</u> 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 <u>analysis</u> 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 winning the AI race doesn't mean swamping the

average American household with ever-rising energy costs and power shortages.



Heatwaves Are an Energy Reality Check Terry Jarrett July 15th, 2025

The recent heatwave that blanketed the Midwest and much of the East Coast pushed America's electricity supply to its <u>limit</u>. Grid operators declared max generation events, calling on every available power plant to crank out supply. It was all hands on deck. Now, after a near-collapse of America's power grid, it should provide a critical teaching moment.

During the peak electricity demand of brutal summer heat or bitter winter cold, we're able to cut through the political noise and clearly understand what keeps America's lights on, the gears of industry churning, and our homes comfortable.

The data is clear. For reliable power when we need it most, the nation's coal and natural gas power plants remain our workhorses. They rise to the occasion, going above and beyond to meet soaring demand. Unfortunately, that cannot be said for the billions of dollars in renewable energy investments.

Consider what happened to the Midcontinent Independent System Operator <u>grid</u> that covers parts of 15 states stretching up from Louisiana through Minnesota. This vast stretch of America includes some of the very best wind-generating real estate in the country. On June 24, just as power demand neared its peak, wind generation was all but a no-show. Of MISO's 30 gigawatts of nameplate wind capacity — the amount of power that wind generation can provide during ideal conditions — wind provided just 2.8 GW. And of the 111 GW of demand on the MISO grid, wind power met just 2.5 percent of it.

While helpful, solar power also showed its limitations. In the New England grid on the same day, when power demand was peaking at 6 p.m., solar output was less than half of what it had been at midday. With lights coming on and air conditioners still running at full bore from the sweltering heat, solar power completely disappeared in the evening.

During a TV appearance, Energy Secretary Doug Burgum pointed out that, at 6 a.m., the nation's largest electricity grid, PJM Interconnection serving 67 million customers, was getting only 2 percent of its power from wind and solar.

This inability of wind and solar power to match peak power demand — or the possibility of them disappearing when needed most — is a crippling limitation. How can the United States build a reliable power system around resources that, by their very nature, are as unreliable as the weather? The short answer is, we can't.

Consider that Germany has already invested an extraordinary amount of money attempting a rapid transition to renewable energy. And now, they've coined a new word, dunkelflaute, which means "dark doldrums." It aptly describes the windless and cloudy moments that can bring a renewable energy system to its knees.

Last fall, northwestern Europe experienced multiple episodes of the dark doldrums. The first, in early November, <u>lasted 12 days</u>. On the third day, German wind power output plunged to less than 0.2 GW, compared to an installed capacity of 70 GW. Coal and natural gas were used to hold off rolling blackouts.

We should be paying close attention. Whether in the United States or abroad, the limitations of weather-dependent solar and wind power have come into alarming focus. While these sources of power can be fuel savers, they are not grid reliability providers.

With power demand now surging from electric vehicles and data centers — and with our grid operators and reliability regulators warning of mounting reliability concerns — we must not overlook the irreplaceable importance of coal and natural gas power plants. As the recent heatwave underscored, without a balanced electricity mix, we could be left sweltering in the dark.