A Return to Coal?

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A Return to Coal? Implications for energy security and the environment

by Jonathan Lott and Ahmad Ali

"A conservative is someone who stands athwart history, yelling Stop." - William F. Buckley

President Trump recently signed four executive orders relating to coal extraction that have shaken up the status quo on American energy. While regions of the world like Europe face national security challenges relating to energy and countries like South Africa face prolonged load-shedding and

electrical blackouts, energy independence has reemerged as a policy focus for states in an uncertain moment.

One executive order prolongs the life of aging coal plants to meet rising energy demand, specifically "due to the resurgence of domestic manufacturing and the construction of artificial intelligence data processing centers." It also mandates a study of coal reserves on federal lands, with an aim to one day exploit some of them. Furthermore, the order suggests coal may be added to the "Critical Minerals List," a government document currently containing fifty minerals essential to the energy industry and at risk of supply chain disruption. This designation also opens up coal to greater federal investment and protection, which may be pivotal in securing energy dominance during a time of uncertainty.

Another order targets interstate obstacles to exploiting various domestic sources of energy. (A large coalition of states is attempting to push back.) A different order grants the Secretary of Energy powers to prevent the retirement of fossil fuel sources. The final executive action accomplishes a similar aim, prolonging the life of coal plants. President Trump even reclassified coal as a mineral—although industry professionals claim it is technically a rock. This move, controversial as it may be, aligns with broader geopolitical goals to assert dominance in energy production at a time when global resource competition is intensifying.

The U.S. Energy Information Administration's 85-page Annual Coal Report, published in October 2024, explains the state of American coal mines, prices, reserves, employment figures, and consumption. The document includes data through the end of 2023.

According to the report, overall US coal production peaked in 2008 with approximately 1,172 million short tons; in 2023, the country extracted just 49% of that total. (The U.S. measures coal in "short tons," to be distinguished from "long tons" or the more commonly used metric tons. One short ton equals 2,000 pounds, or roughly 907 kg.) Over half of American coal is exported to just five countries: India, the Netherlands, Japan, Brazil, and South Korea. This export focus underlines coal's continued global relevance, despite domestic declines, suggesting a demand that could be more politically strategic than it appears at first glance.

Unsurprisingly, coal consumption in the United States has also dropped in recent years. Americans burnt 17% less coal in 2023 than they did in 2022—and it currently accounts for about 17% of the nation's energy production (compared with natural gas, which produces 38% of American electricity). This stands in stark contrast to India and China, nations which are continually expanding coal extraction and combustion to meet their populations' surging energy needs. China alone currently represents just over half of the world's annual coal consumption. This discrepancy signals the global divide in energy priorities, with some nations moving towards cleaner sources while others double down on coal's reliability and affordability.

Doubling down on coal is, for Trump, simply good politics—despite whatever environmental ramifications follow. Eight of the ten most coal-producing states voted for Donald Trump in 2024, and the top two (Wyoming and West Virginia) voted for Trump over Kamala Harris by the largest margins. For voters in these historic coal producing states, defense of their historic industries can be seen as a reward for their strong political support. During difficult economic times, cheaper energy is always welcome, too. By championing the coal industry, Trump secures and rewards the loyalty of working-class voters in key battleground states, cementing his position among those who feel left behind by the rise of green technologies.

However, experts believe that a return to the era of coal predominance in the United States is unlikely, given the diversification of the energy landscape, as well as technological, financial, and cultural pressures. Opponents also say that the abandonment of climate watchdogs is itself a danger to national and international security. President Trump's designation as "beautiful clean coal" is less of a euphemism than a misrepresentation of the dangers of coal mining and combustion.

There is also the issue that renewable power generation is cheaper to operate than nearly every coal plant. Unlike some forms of energy, coal can be stockpiled, and can generate power at times when the sun goes down or when the wind stops. Coal extraction can also be seen as a hedge against renewable energy, as well as dependencies on international partners for infrastructure and equipment. This nuanced energy debate often omits the fact that the renewable transition is not just about cost savings, but about reducing the environmental and geopolitical risks associated with fossil fuel dependence.

Much can also be said about coal's role in steel production. Bituminous or metallurgical coal (also called coking coal) is needed to produce coke, which is used to manufacture steel. The World Steel Association claims that 71% of steel today is made using coal. In a world that is rapidly urbanizing, developing, and gearing up for war (or "deterrence"), ambitions to move beyond coal may have to reckon with this dilemma. More than half of the world's steel production is used in construction. "Green steel" does exist, and it is gradually becoming adopted, but the final transition is still far away.

The War in Ukraine has energy implications as well. The Donbas was the heart of Ukraine's once-vibrant coal industry now the U.S. delivers tens of thousands of tons of coking coal to Ukraine every month, an essential ingredient in steel production. Some of the most ambitious countries today—India, China, Russia—are highly dependent on coal, and owe much of their economic security to fossil fuels, even if its combustion has outsourced consequences to the rest of the planet.

Dirty energy lies at the heart of the international prisoner's dilemma today. The economic arms race—including artificial intelligence, arms manufacturing, building new cities and infrastructure, delivering on the needs of people—has forced many competitive states (unlike the UK, which

shut down its last operating coal plant last year) to pursue realist aims oriented towards national security and national demands. Energy is a central domain of competition from which the current US administration will not flinch. Much of the international community faces a similar choice: whether to embrace realism and fossil fuels in a multipolar world, or develop green alternatives and trust in a more sustainable and stable energy future. Energy security is still, and will remain, at the forefront of political and security agendas worldwide.

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