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U.S. Coal Industry Trends

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SUMMARY

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June 30, 2025

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U.S. Coal Industry Trends

The U.S. coal industry has seen a decline in the amount of coal mined and consumed—although mining efficiency has improved. The industry's U.S. employment has declined 92% over a century. U.S. coal consumption and production peaked in 2007 and 2008, respectively. Coal's decline is due in part to technological improvements in the production of other fuels, which have led to more competitive commodity prices. The coal trends are true for all coal, including steam coal used at electric power plants and metallurgical coal used for steel production.

Consumption, production, employment, exports, and other coal industry trends are largely driven by industry decisions based on market conditions. Likewise, increases in coal production on federal lands largely depend on interest from coal developers. Executive actions favorable to the coal industry in the first Trump Administration did not reverse coal power plant retirements, increase employment in the coal sector, or increase coal production. It remains to be seen whether actions taken by the second Trump Administration and the 119th Congress will impact coal power plant retirements and U.S. coal production.

Production and Demand Trends

U.S. coal production and reserves are concentrated in certain areas. Montana and Wyoming together account for 37% of reserves. Three-quarters of coal production in 2023 took place in five states (in order, Wyoming, West Virginia, Pennsylvania, Illinois, and Montana). Significant coal production in two of these top-producing states occurs on federal lands: Wyoming, the top coal-producing state, produced all of the coal located within the state on federal lands, and Montana, which produced the fifth-most coal, produced over one-third of the coal located within the state on federal lands.

Power generation is the primary market for coal in the United States, accounting for over 90% of total consumption. Coal is also used to produce iron and steel. Coal consumption peaked in 2007; by 2024, it had declined by 64%. Decline in overall coal consumption is largely due to retirement of aging coal-fired power plants and a shift toward increased use of natural gas and, to a lesser extent, renewable energy sources to generate electricity. In the broader U.S. energy context, coal accounted for 23% of primary energy consumption (for all uses) in the United States in 2000. In 2024, coal accounted for 8% of primary energy consumption. Coal-fired power plants are retiring at a higher rate than other electricity generators, and the U.S. Energy Information Administration projected in 2025 that annual coal consumption will continue to fall through 2050.

Policy Context and Legislative Considerations

Some bills in the 119th Congress would support coal mining and projects and could delay retirement of coal-fired power plants. H.R. 1 (Title VII, Subtitle A, Part 5), as passed by the House, would change coal leasing on federal land, including by

- setting time limits for agency reviews that are included in the leasing and application process (Sec. 80141);
- requiring the Interior Secretary to make available for lease known recoverable coal resources of at least 4 million federal acres in Alaska and west of the 100th meridian in the 48 contiguous states (Sec. 80141);
- nullifying Secretarial Order 3338, which placed a moratorium on most federal coal leasing until the Bureau of Land Management had conducted a programmatic review of the coal leasing program (Sec. 80142);
- decreasing the royalty rate for federal coal leases until September 30, 2034 (Sec. 80143); and
- authorizing the mining of coal leased under a specific federal coal lease in Montana (Sec. 80144).

H.R. 1 would also establish a new program, called the De-Risking Compensation Program, to provide compensation to sponsors for energy projects, including coal projects, that "suffer unrecoverable losses due to qualifying Federal actions." H.R. 3015, as introduced, would direct the Secretary of Energy to reestablish the National Coal Council, an advisory group to the Department of Energy. Legislation has been introduced to address retiring power plants; some say that such bills may support existing coal-fired power plants. For example, supporters of H.R. 1651 have stated that the bill would prevent premature retirement of coal-fired power plants.

Other Members of Congress have supported legislation that would limit coal development or that otherwise signal opposition to coal. S.J.Res. 10 would have terminated the national emergency relating to energy declared by the January 2025 Executive Order (E.O.) 14156, "Declaring a National Energy Emergency." E.O. 14156 directs executive departments and agencies to prioritize coal production and use, among other provisions.

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Introduction

The second Trump Administration has taken several presidential actions that aim to support the coal industry in the United States by increasing or promoting coal production and use. These include multiple executive orders and presidential proclamations on energy supply and energy policy, including one specifically on coal, titled "Reinvigorating America's Beautiful Clean Coal Industry and Amending Executive Order 14241."[1] In President Trump's executive order titled "Declaring a National Energy Emergency," coal is named as one of the energy sources that the executive departments and agencies are to prioritize for production.[2] See the section "Trump Administration Executive Actions" for more about the executive actions.

The U.S. coal industry has been in decline for decades.[3] This decline is due in part to technological improvements in the production of other fuels that have led to more competitive commodity prices. The first Trump Administration made clear that it wanted to help revive the coal industry. To that effect, it rolled back or initiated the reversal of several coal-related regulations finalized under the Obama Administration.[4] Around this time, three of the largest coal producers emerged from Chapter 11 bankruptcy protection.

Despite its decline, coal is expected to remain an essential component in the U.S. energy picture. How big a role it may play remains an open question, though. The decline in coal's consumption and production has persisted despite the first Trump Administration's policies. Congress is debating whether to support or oppose the current Trump Administration's policies.

This In Brief discusses the current situation of U.S. coal and examines data trends from 2000 to 2024 (with selected data from earlier years); recent policy activity, including executive actions and legislation from the 119th Congress; and what impact these policies may or may not have on the coal industry.

Steam Coal and Met Coal

Steam coal and metallurgical coal are different grades of coal that are identified by their end uses. Steam coal, also referred to as *thermal coal*, is used to generate steam for electrical power plants, while metallurgical coal, also referred to as *met coal* or *coking coal*, is used for steel production.

Met coal can be used for the same purposes as steam coal, but due to the scarcity of met coal, it generally commands a higher price than steam coal.[5] Coal that can be burned to generate electricity, however, may not be appropriate to use as coking coal. Met coal typically has a lower ash and sulfur content than steam coal to avoid contaminating coke made by heating the coal. However, if a combination of properties from multiple types of coal can yield an acceptable coke product, steam coal might provide a portion of this combination in a process called *blending*.

[1] Executive Order (E.O.) 14261, "Reinvigorating America's Beautiful Clean Coal Industry and Amending Executive Order 14241," 90 *Federal Register* 15517, April 14, 2025.

[2] E.O. 14156, "Declaring a National Energy Emergency," 90 *Federal Register* 8433, January 29, 2025. Also see Secretarial Order (S.O.) 3417, "Addressing the National Energy Emergency," February 3, 2025, https://www.doi.gov/document-library/secretary-order/so-3417-addressing-national-energy-emergency.

[3] For more on this decline in the context of broader energy supply and use, see CRS Report R47980, *U.S. Energy Supply and Use: Background and Policy Primer*, coordinated by Brent D. Yacobucci.

[4] For example, in 2019 the U.S. Environmental Protection Agency repealed the Clean Power Plan and promulgated new guidelines for coal-fired power plants in the Affordable Clean Energy rule.

[5] Jonathan Church and Mark Morey, "Reasons Behind the Price Premium for U.S. Metallurgical Coal Exports," *Today in Energy*, April 24, 2024, https://www.eia.gov/todayinenergy/detail.php?id=61924.

Unless steam or met coal is specified, this report discusses all coal, including both of these types.

U.S. Coal Reserves

The United States has the largest coal reserves and resources in the world.[6] The U.S. Energy Information Administration (EIA) estimated in 2023 that there were about 11 billion short tons of recoverable domestic coal reserves, down from 12 billion short tons in 2022 and 17 billion short tons in 2001.[7] EIA defines *recoverable coal reserves* as the quantity of coal that can be mined from reserves at producing mines; this definition excludes coal that is unavailable due to land use restrictions. Recoverable coal reserves differ from the *demonstrated reserve base*, which includes coal identified in public data that is technologically minable.[8] The total demonstrated U.S. reserve base in 2023 was estimated at 469 billion short tons, down from 503 billion short tons in 2000.[9]

U.S. coal reserves are concentrated in certain areas. EIA statistics show that almost half of U.S. reserves are located in Western states, with Montana and Wyoming together accounting for 37%.[10]

U.S. Coal Production

The majority of coal from Western states[11] is produced from surface mines (93%), while the majority of coal from those states identified by EIA as in the Appalachian Region and in the Interior Region is produced from underground mines (79% and 70%, respectively).[12]

[6] U.S. Environmental Information Administration (EIA), *Coal Reserves 2023*, https://www.eia.gov/international/rankings/world?pa=264&u=0&f=A&v=none&y=01%2F01%2F2023&ev=fals. For something to be categorized a *reserve*, it must be reasonably certain that it can be recovered in the future from known resources under existing economic and operating conditions. It must also be able to reach a market. Reserves are a subset of *resources*, which constitutes a broader category.

[7] EIA, *U.S. Coal Reserves*, released October 30, 2024, https://www.eia.gov/coal/reserves/. A short ton, a measurement of weight often used in the United States, is 2,000 pounds. A metric ton, commonly used internationally, is about 2,200 pounds (1,000 kilograms).

[8] Definitions for *recoverable coal reserves* and *demonstrated reserve base* are provided in the notes for "Table 15. Recoverable Coal Reserves at Producing Mines, Estimated Recoverable Reserves, and Demonstrated Reserve Base by Mining Method, 2023," in EIA, *Annual Coal Report 2023*, October 2024, pp. 23-24, https://www.eia.gov/coal/annual/pdf/acr.pdf.

[9] Data for 2024 are not available at time of publication. EIA, *Annual Coal Report 2023*, October 2024, p. 23, https://www.eia.gov/coal/annual/pdf/acr.pdf; and EIA, *Coal Industry Annual 2000*, p. 48, https://www.eia.gov/coal/annual/archive/05842000.pdf.

[10] See demonstrated reserve base data in "Table 15. Recoverable Coal Reserves at Producing Mines, Estimated Recoverable Reserves, and Demonstrated Reserve Base by Mining Method, 2023," in EIA, *Annual Coal Report 2023*, October 2024, pp. 23-24, https://www.eia.gov/coal/annual/pdf/acr.pdf.

[11] The Western Region includes Alaska, Arizona, Colorado, Montana, New Mexico, North Dakota, Utah, Washington, and Wyoming. EIA, "Coal-Producing Regions," *Glossary*, accessed April 21, 2025, https://www.eia.gov/tools/glossary/index.php?id=Coal-producing%20regions.

[12] "Table 1. Coal Production and Number of Mines by State and Mine Type, 2023 and 2022," in EIA, *Annual Coal Report 2023*, October 2024, pp. 2-3, https://www.eia.gov/coal/annual/pdf/acr.pdf. The Appalachian Region includes Alabama, Eastern Kentucky, Maryland, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia. The Interior Region includes Arkansas, Illinois, Indiana, Kansas, Louisiana, Mississippi, Missouri, Oklahoma, Texas, and Western Kentucky.

Like coal reserves, U.S. coal production is highly concentrated in certain areas. According to EIA, 41% of U.S. coal in 2023 was produced in Wyoming, while 15% came from West Virginia.[13] The top five producing states—Wyoming, West Virginia, Pennsylvania, Illinois, and Montana (in order by share of production)—accounted for 75% of U.S. coal production in 2023.[14] Significant coal production in two of these top-producing states occurs on federal lands: Wyoming, the top coal-producing state, produced all of the coal located within the state on federal lands, and Montana, which produced the fifth-most coal, produced over one-third of the coal located within the state on federal lands.[15]

Coal production has declined in recent years and is projected to continue declining. U.S. coal production reached its highest level in 2008 (1.17 billion short tons) and remained strong through 2014 (at or near 1 billion short tons per year). Production declined 49% between 2014 and 2024 (see **Figure 2** and related discussion on coal consumption). EIA projections from 2025 show coal production continuing to decline through the 2020s and maintaining at around 300 million short tons through the 2030s.[16]

Demand for U.S. Coal

The softening of demand for U.S. coal has been attributed to several developments: (1) utilities opting for natural gas after prices for natural gas fell in 2008 and for a few years after (see **Figure 1**); (2) declining costs and increasing uptake of renewable energy options; (3) increasing regulatory costs associated with coal-fired power plants; (4) the aging of the coal fleet; and, until 2021, (5) lower demand for U.S. coal exports (see **Figure 4**). Demand for coal exports rose in 2023 and 2024, reaching the highest levels since 2018. In 2024, EIA projected long-term demand growth in the Asian coal market, but long-term penetration of U.S. coal exports into this market remained uncertain.[17]

[13] "Table 1. Coal Production and Number of Mines by State and Mine Type, 2023 and 2022," in EIA, *Annual Coal Report 2023*, October 2024, pp. 2-3, https://www.eia.gov/coal/annual/pdf/acr.pdf.

[14] Data for 2024 are not available at time of publication. "Table 1. Coal Production and Number of Mines by State and Mine Type, 2023 and 2022," in EIA, *Annual Coal Report 2023*, October 2024, pp. 2-3, https://www.eia.gov/coal/annual/pdf/acr.pdf.

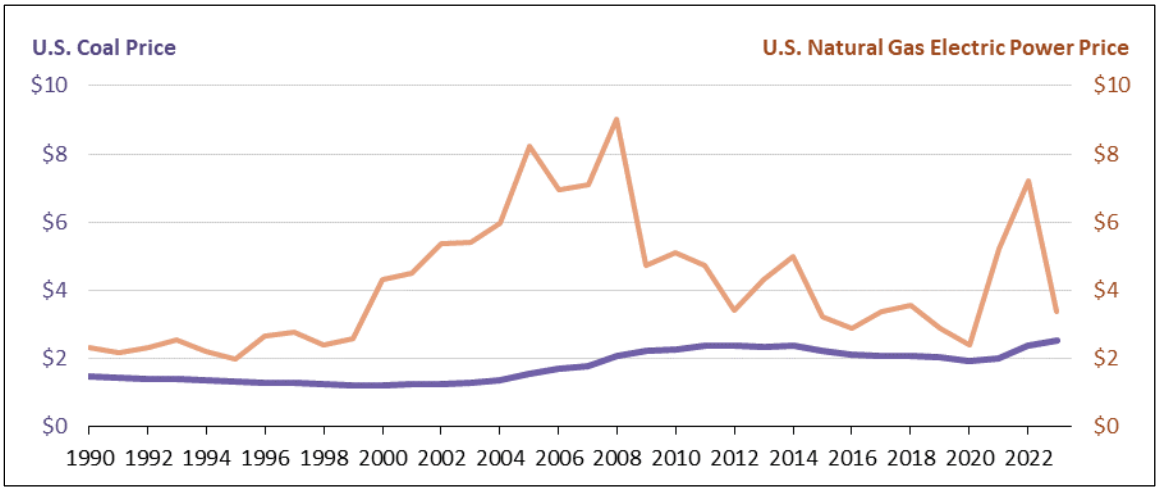
[15] For more on coal production on federal lands, see CRS Infographic IG10076, *U.S. Coal Production & Federal Lands*, by Lexie Ryan. Coal production on lands associated with federally recognized Tribes is outside the scope of this report. Production and revenue data are available from the Department of the Interior (DOI), Office of Natural Resources Revenue (ONRR), at https://revenuedata.doi.gov/query-data/.

[16] "Table 15. Coal Supply, Disposition, and Prices," in EIA, *Annual Energy Outlook 2025*, April 2025, https://www.eia.gov/outlooks/aeo/. Based on EIA's reference case scenario.

[17] Jonathan Church, "U.S. Coal Exports Account for Larger Share of a Shrinking Market," *Today in Energy*, January 29, 2024, https://www.eia.gov/todayinenergy/detail.php?id=61323.

Figure 1. Average Annual Prices of Coal and Natural Gas, 1990-2023

(price of fuel delivered to electric utility plants, nominal USD per MMBtu)



Sources: For 1990-2001, see "Table 4.5. Receipts, Average Cost, and Quality of Fossil Fuels at Electric Utilities, 1990 Through 2001," in U.S. Environmental Information Administration (EIA), *Electric Power Annual 2001*, March 2003. For 2002-2012, see "Table 7.4. Weighted Average Cost of Fossil Fuels for the Electric Power Industry, 2002 Through 2012," in EIA, *Electric Power Annual 2012*, December 2013. For 2013-2023, see "Table 7.4. Weighted Average Cost of Fossil Fuels for the Electric Power Industry, 2013 Through 2023" in EIA, *Electric Power Annual 2023*, October 2024. *Electric Power Annual* reports for all years are available at https://www.eia.gov/electricity/annual/.

Notes: Fuel cost is one of many cost factors for power plants. The year 1990 is the earliest year for which the table is included in EIA's annual electric power report. MMBtu = million British thermal units.

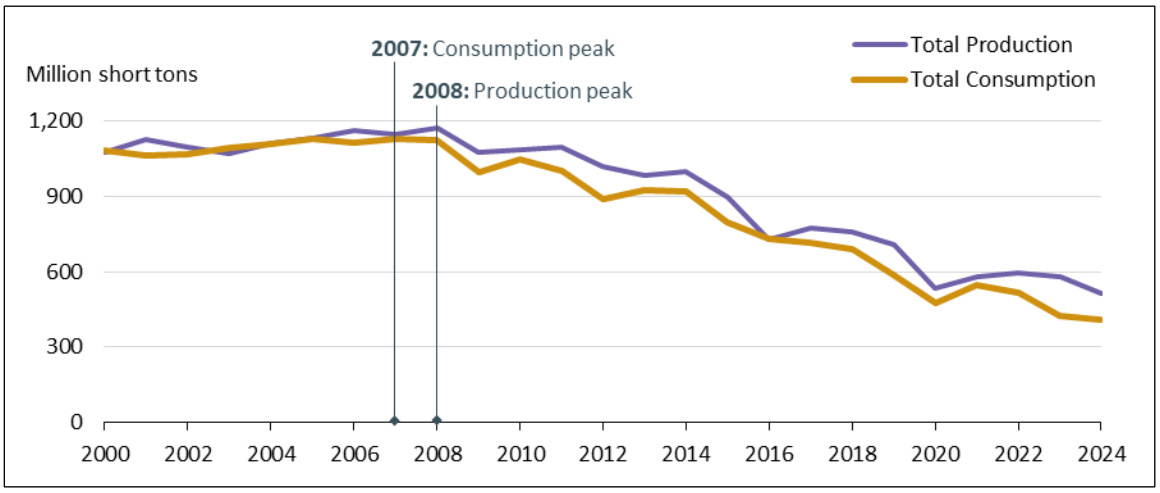
U.S. Coal Consumption

Coal consumption in the United States was consistently near or above 1 billion short tons per year from 2000 (peaking in 2007 at 1.128 billion short tons) until 2012, when demand fell to 889 million short tons. As shown in **Figure 2**, consumption has declined further since 2012, reaching 411 million short tons in 2024, a decline of 64% since 2007. EIA projects annual coal consumption to fall below 200 million short tons by 2050.[18]

[18] "Table 15. Coal Supply, Disposition, and Prices," in EIA, *Annual Energy Outlook 2025*, April 2025, https://www.eia.gov/outlooks/aeo/. Based on EIA's reference case scenario.

Figure 2. U.S. Coal Production and Consumption, 2000-2024

(million short tons)



Sources: For 2000-2009, "Table 6.1. Coal Overview," in U.S. Environmental Information Administration (EIA), *Monthly Energy Review*, January 2011, p. 83, https://www.eia.gov/totalenergy/data/monthly/archive/00351101.pdf. For 2010-2024, "Table 6.1. Coal Overview," in EIA, *Monthly Energy Review*, March 2025, p. 123, https://www.eia.gov/totalenergy/data/monthly/archive/00352503.pdf.

Note: U.S. coal production peaked in 2008 at 1,171.8 million short tons.

Electric power generation is the primary market for coal in the United States, accounting for over 90% of total consumption. Other end uses for coal include production of iron and steel.[19]

Demand for coal in the United States is experiencing a structural shift as natural gas and (to a lesser extent) renewables replace coal for power generation. In 2016, natural gas overtook coal as the number one energy source for power generation. This shift can also be seen by comparing the data on primary energy consumption of fuels more broadly in 2000 and 2024 (see **Figure 3**).[20] Coal-fired power plants, which are often older than other electricity generators, are retiring at a higher rate than other kinds of plants, with 4.7% of the U.S. coal fleet planned for retirement in 2025 (compared to 0.5% of the natural gas fleet).[21] This structural shift may mean long-term reduced capacity for coal-fired electric generation.[22] Thus, coal could make up a declining portion of total U.S. energy consumption for years to come.

[19] "Table 6.2. Coal Consumption by Sector," in EIA, *Monthly Energy Review*, March 2025, p. 124, https://www.eia.gov/totalenergy/data/monthly/archive/00352503.pdf.

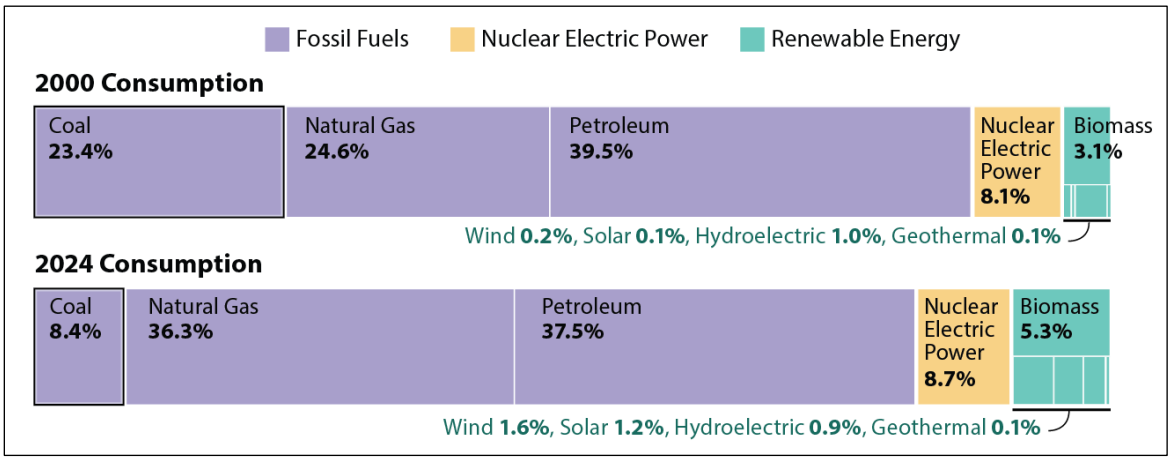
[20] Comparing primary energy across different sources can be challenging due to assumptions and calculations that may vary based on different technologies and applications. See CRS Report R48270, *How Is Primary Energy Defined and Used?*, by Morgan Smith.

[21] Office of Energy Statistics staff, "Planned Retirements of U.S. Coal-Fired Electric-Generating Capacity to Increase in 2025," *Today in Energy*, February 25, 2025, https://www.eia.gov/todayinenergy/detail.php?id=64604.

[22] The costs of modernizing older power plants to meet new regulatory requirements can be relatively high. EIA projects many more U.S. coal-fired plants will be retired and replaced with natural gas and renewable energy facilities as coal plants become too expensive to maintain or upgrade. Another consideration is the capacity factor (utilization) of coal plants. As they are used less regularly (because renewables and natural gas outcompete them on cost), their revenue and profits decrease. Operators may choose to retire an underutilized plant rather than maintain it.

Figure 3. Primary Energy Consumption by Source, 2000 and 2024

(percentage of total)



Source: "Table 1.3. Primary Energy Consumption by Source," in U.S. Environmental Information Administration (EIA), *Monthly Energy Review*, April 2025, p. 7, https://www.eia.gov/totalenergy/data/monthly/archive/00352504.pdf.

Notes: These data are across all sectors, not only electricity generation. Petroleum is predominantly used in transportation. Totals may not equal 100% due to rounding.

Coal Exports

The U.S. coal industry is trying to expand its overseas coal markets, particularly for steam coal to Asia, to compensate for declining domestic demand.

U.S. coal is predominantly exported from seaport terminals. Norfolk, VA, exported the most U.S. coal in 2024 (41.636 million short tons), followed by New Orleans, LA (15.168 million short tons); Baltimore, MD (25.709 million short tons); Mobile, AL (12.440 million short tons); and Seattle, WA (6.807 million short tons).[23]

All coal exports have risen each year since 2020 (see **Figure 4**), reflecting increasing exports to countries in South America, Asia, and Africa. In 2024, the top five importers of U.S. coal were India (23% of total U.S. coal exports), China (12%), Japan (8%), Brazil (8%), and the Netherlands (7%).[24] U.S. steam coal exports to Europe, which was the top regional destination for U.S. coal exports until 2017, rose temporarily in 2022 and the first half of 2023, due to sanctions on Russian coal—but in the first half of 2024, U.S. exports to Europe fell relative to the same period in 2023.[25]

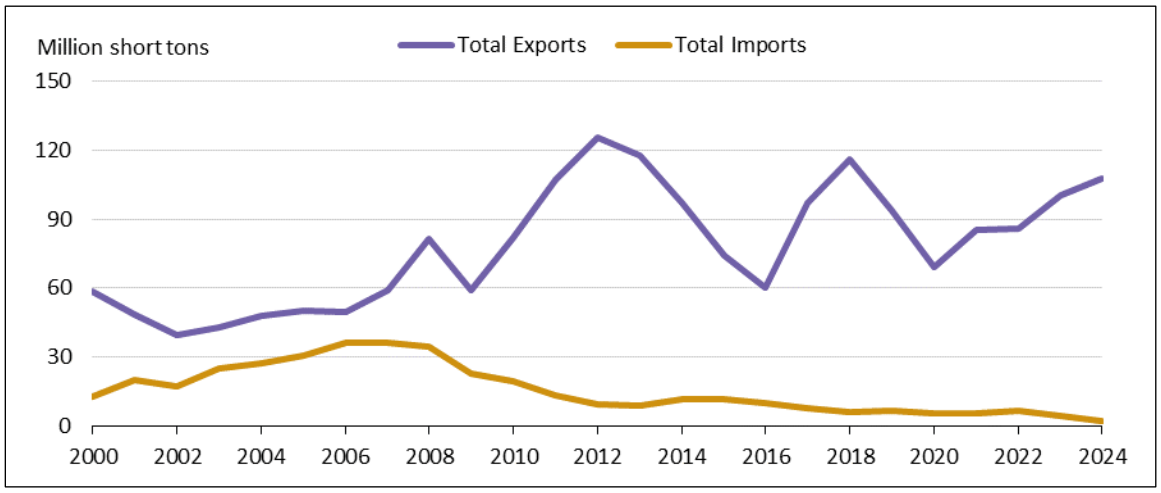
[23] "Table 13. U.S. Coal Exports by Customs District," in EIA, *Quarterly Coal Report: October-December 2024*, April 2025, https://www.eia.gov/coal/production/quarterly/.

[24] "Table 7. U.S. Coal Exports," in EIA, *Quarterly Coal Report: October-December 2024*, April 2025, https://www.eia.gov/coal/production/quarterly/.

[25] Jonathan Church, "U.S. Thermal Coal Exports to Asia and Africa Surge as Shipments to Europe Fall," *Today in Energy*, September 4, 2024, https://www.eia.gov/todayinenergy/detail.php?id=63004.

Figure 4. Coal Exports and Imports, 2000-2024

(million short tons)



Sources: For 2000-2009, "Table 6.1. Coal Overview," in U.S. Environmental Information Administration (EIA), *Monthly Energy Review*, January 2011, p. 83, https://www.eia.gov/totalenergy/data/monthly/archive/00351101.pdf. For 2010-2024, "Table 6.1. Coal Overview," in EIA, *Monthly Energy Review*, March 2025, p. 123, https://www.eia.gov/totalenergy/data/monthly/.

Note: Includes both steam coal and metallurgical coal.

EIA forecasts coal exports to decline to 104 million short tons in 2025, before rising to about 122 million short tons per year by 2050.[26] Exports to the Asian market are expected to increase, but there are potential bottlenecks such as infrastructure (e.g., port development and transportation) that could slow export growth. Tariff policy may also impact exports of U.S. coal.

Several key factors are likely to influence how much coal will be exported from the United States in the future. One factor is whether new export terminals are built, particularly for coal from the Powder River Basin (PRB) in Wyoming and Montana. Wyoming and Montana together accounted for 46% of U.S. coal production in 2024, but Western export terminals accounted for only 8% of exports in 2024.[27]

Another major factor is the level of global demand for met coal. Historically, met coal has represented the majority of coal exported by the United States, accounting for as much as two-thirds of exports in some years.[28] Some PRB coal, which is predominantly steam coal, is exported from Canadian terminals at Roberts Bank (near Vancouver, British Columbia) and Ridley Terminal at Prince Rupert, British Columbia. PRB coal is transported to both facilities for export via railway.

PRB coal producers have sought to export via the Pacific Northwest to supply the growing Asian market, but with little success. For example, three port terminal projects for exporting coal in

[26] "Table 15. Coal Supply, Disposition, and Prices," in EIA, *Annual Energy Outlook 2025*, April 2025, https://www.eia.gov/outlooks/aeo/. Based on EIA's reference case scenario.

[27] These include terminals in Anchorage, AK; Great Falls, MT; Los Angeles, CA; Nogales, AZ; San Diego, CA; San Francisco, CA; and Seattle, WA.

[28] See the data set "Quantity & price of coal imports & exports" in EIA, *Coal Data Browser*, https://www.eia.gov/coal/data/browser/.

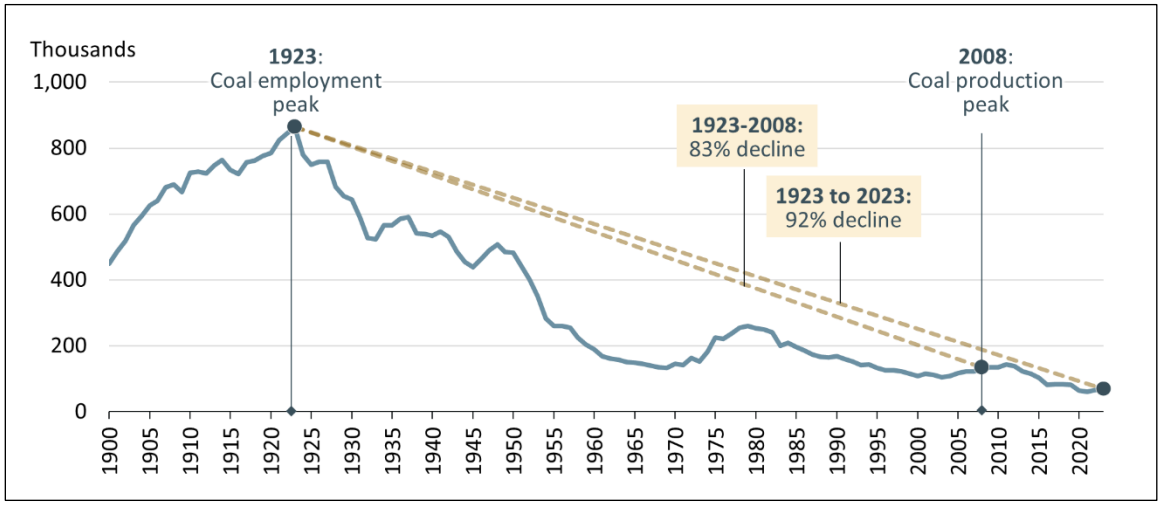
Washington and Oregon had permit applications before state regulators and the U.S. Army Corps of Engineers (USACE), but none of the permit applications were approved.[29]

U.S. Coal Mining Employment

Coal mining employment in the United States peaked in 1923 and declined 92% in the century that followed (see **Figure 5**). According to data from the Department of Labor, the number of U.S. coal miners declined from a peak of about 863,000 in 1923 to 69,000 in 2023.[30]

Figure 5. Coal Mining Employment, 1900-2023

(thousands)



Source: Employment from Department of Labor (DOL), "Coal Fatalities for 1900 Through 2023," accessed May 2, 2025, https://arlweb.msha.gov/stats/centurystats/coalstats.asp. Coal production peak from "Table 6.1. Coal Overview," in U.S. Environmental Information Administration (EIA), *Monthly Energy Review*, January 2011, p. 83, https://www.eia.gov/totalenergy/data/monthly/archive/00351101.pdf.

Notes: According to the DOL source, office workers are included in the coal mining employment data starting in 1973.

Most of this decline occurred as production grew, while output per mine and output per worker increased. Over time, the average mine size has increased and coal mining processes have become more efficient. For example, the number of coal miners declined 83% from 1923 to 2008, yet coal production peaked in 2008; this means that coal miners in 2008 were producing more coal per miner than their counterparts nearly a century earlier. EIA data, which are available only from 1993 on, show a similar pattern for the number of coal mines: The number of coal mines

[29] A permit from USACE is needed for work that discharges dredge or fill material in waters of the United States or wetlands, pursuant to provisions in Section 404 of the Clean Water Act; and for the construction of any structure in, over, or under navigable waterways of the United States, including excavation, dredging, or deposition of these materials in these waters, pursuant to Section 10 of the Rivers and Harbors Act of 1899. The proposed port projects in Washington and Oregon would involve such activities and must obtain either a Section 404 permit or a Section 10 permit, or both in many circumstances, from USACE before construction of a project can proceed. Discussion of USACE permit requirements is beyond the scope of this report.

[30] Department of Labor, *Coal Fatalities for 1900 Through 2023*, accessed May 2, 2025, https://arlweb.msha.gov/stats/centurystats/coalstats.asp.

declined by 77% from 1993 to 2023 (from 2,475 to 560).[31] Additionally, production has shifted from underground mines in the Eastern United States to Western surface mines, such as in Wyoming and Montana, which require less labor to produce the same amount of coal.

U.S. Coal-Producing Industry

The U.S. coal industry is highly concentrated, with a handful of major producers.[32] In 2023, the top five coal mining companies were responsible for 51% of U.S. coal production, led by Peabody Energy, with 18%, and Arch Resources, with 13.2% (see **Table 1**). Other major producers include Navajo Transitional Energy Company, ACNR Holdings, and Alliance Resource Partners.

In 2015 and 2016, three of the top five coal producers (2015 rankings) filed for Chapter 11 bankruptcy protection: Alpha Natural Resources, in August 2015; Arch Coal, in February 2016; and Peabody Energy, in April 2016. The latter two together accounted for nearly 33% of U.S. coal production in 2016. Other producers—such as Patriot Coal, Walter Energy, James River Coal, Armstrong Energy, and FirstEnergy Solutions—have filed for bankruptcy as well over the last decade.

Arch Coal, Peabody Energy, and Alpha Natural Resources (which became two companies, ANR Inc. and Contura Energy)[33] emerged from Chapter 11 bankruptcy with plans to move forward, all three shedding substantial debt. At the time, opponents were critical of these plans and questioned the long-term viability and reliability of the U.S. coal industry.[34] Arch Resources (formerly Arch Coal) and Peabody Energy have been the top two U.S. coal producers in every year from 2016 to 2023. ANR Inc. and Contura Energy merged under the name Contura Energy in 2018;[35] in 2021, Contura Energy changed its name to Alpha Metallurgical Resources.[36] Alpha Metallurgical Resources was the 10th leading U.S. coal producer in 2023.[37]

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[31] Data for the number of coal mines are available only for 1993-2023. EIA publishes the number of mines each year in its annual coal report. For 1993-2000, see "Table 3. Coal Production and Number of Mines by State and Mine Type," in EIA, *Coal Industry Annual*, reports for each year available at https://www.eia.gov/coal/annual/archive/. For 2001-2023, see "Table 1. Coal Production and Number of Mines by State and Mine Type," in EIA, *Annual Coal Report*, reports for each year available at https://www.eia.gov/coal/annual/.

[32] For more information on coal production by state and by federal/nonfederal land, see CRS Infographic IG10076, *U.S. Coal Production & Federal Lands*, by Lexie Ryan.

[33] Alpha Natural Resources emerged from bankruptcy in 2016 as two distinct entities: ANR Inc. and Contura Energy Inc. Greg Johnson, "Alpha Out of Bankruptcy—and the PRB," *Gillette News Record*, July 27, 2016, https://www.gillettenewsrecord.com/news/local/article_cd19a553-6729-506a-8fed-6c84e4501a7f.html.

[34] Heather Richards, "Does the Sale of Contura Coal Mines Herald a Change in the Northeast Wyoming? Depends on Who You Ask," *Casper Star Tribune*, December 16, 2017, https://trib.com/business/energy/does-the-sale-of-contura-coal-mines-herald-a-change-in-the-northeast-wyoming-depends/article_2322fa81-d1b7-5c0b-8de9-d048156fa255.html (link requires paid subscription).

[35] *Mining Engineering Online*, "Contura Energy, Alpha Natural Resources to Merge, Creating Largest U.S. Met Coal Producer," April 30, 2018, https://me.smenet.org/contura-energy-alpha-natural-resources-to-merge-creating-largest-u-s-met-coal-producer/; MarketScreener, "Contura Energy, Inc. Completed the Acquisition of Alpha Natural Resources Holdings, Inc. and Alpha Natural Resources Inc.," November 8, 2018, https://www.marketscreener.com/quote/stock/ALPHA-METALLURGICAL-RESOU-42845044/news/Contura-Energy-Inc-completed-the-acquisition-of-Alpha-Natural-Resources-Holdings-Inc-and-Alpha-N-34517527/.

[36] Contura Energy, Inc., "Contura Energy Announces Upcoming Name Change to Alpha Metallurgical Resources, Inc.," PR Newswire, January 22, 2021, https://www.prnewswire.com/news-releases/contura-energy-announces-upcoming-name-change-to-alpha-metallurgical-resources-inc-301212979.html.

[37] "Table 10. Major U.S. Coal Producers, 2023," in EIA, *Annual Coal Report 2023*, October 2024, p. 15, https://www.eia.gov/coal/annual/pdf/acr.pdf.

Major challenges for the U.S. coal mining industry include obtaining the level of financing needed for new or expanded projects and maintaining profitability in a market with declining domestic demand.

Table 1. Leading U.S. Coal Producers and Percentage of U.S. Coal Production

2023		2010		2000	
Producer	**Percentage of Total**	**Producer**	**Percentage of Total**	**Producer**	**Percentage of Total**
Peabody Energy Corp.	18.0%	Peabody Energy Corp.	17.7%	Peabody Coal Co.	13.1%
Arch Resources, Inc.	13.2%	Arch Coal, Inc.	16.0%	Arch Coal, Inc.	10.1%
Navajo Transitional Energy Co.	7.9%	Cloud Peak Energy	8.6%	Kennecott Energy	9.9%
Alliance Resource Partners	6.0%	Alpha Natural Resources	7.4%	CONSOL Energy, Inc.	6.9%
ACNR Holdings, Inc.	5.6%	CONSOL Energy, Inc.	5.7%	RAG	5.9%

Sources: "Table 10. Major U.S. Coal Producers, 2023," in U.S. Energy Information Administration (EIA), *Annual Coal Report 2023*, October 2024, p. 15, https://www.eia.gov/coal/annual/pdf/acr.pdf. "Table 10. Major U.S. Coal Producers, 2010," in EIA, *Annual Coal Report 2010*, https://www.eia.gov/coal/annual/archive/05842010.pdf. "Table 15. Major U.S. Coal Producers, 2000," in EIA, *Coal Industry Annual 2000*, https://www.eia.gov/coal/annual/archive/05842000.pdf.

Notes: In 2020, Arch Coal, Inc., changed its name to Arch Resources, Inc. EIA refers to "Peabody Energy" starting in *Annual Coal Report 2007*; EIA refers to "Peabody Coal" in reports prior to 2007.

Coal Policy: Recent Activity

Legislation in the 119th Congress

Some Members of Congress have introduced legislation addressing different aspects of coal development and use. In the 119th Congress, H.R. 1 (Title VIII, Subtitle A, Part 5), as passed by the House, would make changes to coal leasing on federal land.[38] These changes include

- setting time limits for agency reviews that are included in the federal coal leasing and application process (Sec. 80141);
- requiring the Secretary of the Interior to make available for lease known recoverable coal resources leasing of at least 4 million acres "on Federal land west of the 100th meridian located in the 48 contiguous States and Alaska" (Sec. 80141);
- nullifying Secretarial Order 3338, which placed a moratorium on most federal coal leasing until the Bureau of Land Management (BLM) had conducted a programmatic review of the coal leasing program (Sec. 80142);

[38] For more information about coal production on federal land, see CRS Infographic IG10076, *U.S. Coal Production & Federal Lands*, by Lexie Ryan.

- decreasing the royalty rate for new and existing federal coal leases until September 30, 2034 (Sec. 80143); and
- authorizing the mining of coal leased under a specific federal coal lease in Montana (Sec. 80144).

Congress may consider how these provisions would support developing coal resources on federal lands, and how developing these resources may impact federal spending. According to the Congressional Budget Office (CBO), two of these provisions relating to leasing coal on federal land would impact direct spending:

1. Leasing (Sec. 80141) could increase direct spending by $269 million from FY2025 to FY2029, while decreasing federal spending by $237 million when accounting for offsetting receipts and sequestration for the period FY2025-FY2034.[39] In an estimate on an earlier version of the bill, CBO clarified that these spending numbers come from "bonus bids, rents, and royalties."
2. Authorizing mining for the specific lease in Montana (Sec. 80144) could save $42 million by increasing net royalties from FY2025 to FY2029 and FY2025 to FY2034.[40]

In addition to provisions about coal leasing on federal land, H.R. 1 (Title VII, Subtitle A, Sec. 41005), as passed by the House, would establish the De-Risking Compensation Program within the Department of Energy (DOE). The program would "provide compensation to sponsors, with respect to covered energy projects, that suffer unrecoverable losses due to qualifying Federal actions." Covered projects would include "the development, extraction, processing, transportation, or use of coal," among other energy and mineral sources.

H.R. 1 would also appropriate $10 million through FY2034 for the program. Congress may consider how this program could support the construction of new coal projects, especially given the challenge for new coal projects in obtaining financing. Congress may also consider the cost of the program, including compensation payments as well as receipts from the program's enrollment fees and annual premiums; CBO estimates the program may result in a decrease of $1,235 million in direct spending from FY2025 to FY2029, while estimating a net increase of $210 million in federal direct spending from FY2025 to FY2034.[41]

[39] See "Part 5. Coal" in "Title VIII – Natural Resources" in Congressional Budget Office (CBO), *Estimated Budgetary Effects of H.R. 1, the One Big Beautiful Bill Act*, June 4, 2025, https://www.cbo.gov/system/files/2025-06/HR1_HousePassed_6-4-2025.xlsx. In an estimate on an earlier version of the bill, CBO clarified that these spending numbers come from "bonus bids, rents, and royalties": CBO, *Reconciliation Recommendations of the House Committee on Natural Resources*, May 19, 2025, https://www.cbo.gov/publication/61415.

[40] See "Part 5. Coal" in "Title VIII – Natural Resources" in CBO, *Estimated Budgetary Effects of H.R. 1, the One Big Beautiful Bill Act*, June 4, 2025, https://www.cbo.gov/system/files/2025-06/HR1_HousePassed_6-4-2025.xlsx.

[41] See "Sec. 41005" in "Title IV – Energy and Commerce" in CBO, *Estimated Budgetary Effects of H.R. 1, the One Big Beautiful Bill Act*, June 4, 2025, https://www.cbo.gov/system/files/2025-06/HR1_HousePassed_6-4-2025.xlsx.

H.R. 3015, as introduced, would direct the Secretary of Energy to reestablish the National Coal Council (NCC), an advisory group to DOE. NCC was established by DOE in 1984 (not by statute) and ceased operations in 2021. According to NCC's website, "the principal activity of the NCC-FACA [NCC Federal Advisory Committee] is to prepare reports for the Secretary of Energy."[42] In 2025, DOE announced that it was reinstating the National Coal Council.[43]

Some Members of Congress have expressed concern about retiring power plants, including coal-fired plants, amid high consumer energy prices and an expected rise in demand for electricity from new demand sources such as artificial intelligence (AI) computing centers.[44] Legislation has been introduced on electric reliability, but not coal specifically, including the following:

- H.R. 3616 (Reliable Power Act), which would require the Federal Energy Regulatory Commission (FERC) to review regulations that may affect reliability of the bulk power system;
- H.R. 1047 and S. 465 (GRID Power Act), which would direct FERC to reform the interconnection study process to prioritize "new dispatchable power projects";
- H.R. 3632 (Power Plant Reliability Act of 2025), which would require owners and/or operators of generating facilities to provide notice of planned retirements;
- H.R. 3843 (Baseload Reliability Protection Act), which would prohibit retirements of baseload power plants in regions at risk of electricity supply shortfalls; and
- H.R. 1651, which would nullify the final rule issued on May 9, 2024, by the Environmental Protection Agency relating to "New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule."

Some say that bills such as these may also support existing coal-fired power plants; for example, supporters of H.R. 1651 stated that the bill would prevent premature retirement of coal-fired power plants.[45]

Other Members of Congress have supported legislation that would limit coal development or that otherwise signal opposition to coal. In the 119th Congress, S.J.Res. 10, which failed a Senate floor vote, would have terminated the national emergency relating to energy declared by Executive

[42] National Coal Council (NCC), "The National Coal Council," accessed June 26, 2025, https://nationalcoalcouncil.energy.gov/ncc/national-coal-council. NCC studies are available at https://nationalcoalcouncil.energy.gov/ncc/studies-national-coal-council.

[43] "Energy Department Acts to Unleash American Coal by Strengthening Coal Technology and Securing Critical Mineral Supply Chains," Department of Energy (DOE), April 8, 2025, https://www.energy.gov/articles/energy-department-acts-unleash-american-coal-strengthening-coal-technology-and-securing.

[44] For more on electricity reliability and power plant retirements, see CRS Report R47521, *Electricity: Overview and Issues for Congress*, by Ashley J. Lawson.

[45] Rep. Carol Miller, "Miller, Colleagues Introduce Bill to Nullify Biden Plan to Retire American Power Plants," press release, February 28, 2025, https://miller.house.gov/media/press-releases/miller-colleagues-introduce-bill-nullify-biden-plan-retire-american-power.

Order (E.O.) 14156.[46] E.O. 14156 directs executive departments and agencies to prioritize coal production and use, among other provisions.

Trump Administration Executive Actions

In addition to declaring a national emergency relating to "precariously inadequate and intermittent energy supply, and an increasingly unreliable grid," E.O. 14156 also directs executive departments and agencies to support aspects of the domestic coal industry to ensure supply and infrastructure of coal (and other types of energy) meet future needs. This includes coal production (including on federal land); coal transportation and use in the United States; and coal exports to international allies.[47]

Other executive orders support the coal industry in the United States by increasing or promoting coal production and use, particularly in power generation. The E.O. titled "Reinvigorating America's Beautiful Clean Coal Industry and Amending Executive Order 14241" directs agencies to "prioritize coal leasing and related activities" on federal lands; evaluate existing regulations and programs and consider rescinding those that "seek to transition the Nation away from coal production and electricity generation"; promote exports of U.S. coal; and support coal use to generate electricity for data centers. The E.O. also directs the Secretaries of Energy and the Interior to consider designating metallurgical coal as a "critical material" and "critical mineral," respectively.[48] In response to the E.O.'s directive, DOE designated coal as a critical material in May 2025.[49] As of June 30, 2025, DOI had not yet released its 2025 list of critical minerals.[50]

The E.O. titled "Protecting American Energy from State Overreach" declared that the second Trump Administration is committed to the removal of "illegitimate impediments to the identification, development, siting, production, investment in, or use of" specific domestic energy resources, including coal.[51] The order specifically indicated that impeding state and local laws, regulations, and policies are to be identified.

Among other measures, the E.O. titled "Strengthening the Reliability and Security of the United States Electric Grid" directs the Secretary of Energy to develop a protocol to identify generation resources that are critical to system reliability.[52] The protocol must "include all mechanisms available under applicable law, including section 202(c) of the Federal Power Act, to ensure any generation resource identified as critical within an at-risk region is appropriately retained." Further, the protocol must prevent, "as the Secretary of Energy deems appropriate and consistent with applicable law," identified resources from "leaving the bulk-power system" or converting

[46] E.O. 14156, "Declaring a National Energy Emergency," 90 *Federal Register* 8433, January 29, 2025; and S.O. 3417, "Addressing the National Energy Emergency," February 3, 2025.

[47] E.O. 14156, "Declaring a National Energy Emergency," 90 *Federal Register* 8433, January 29, 2025; and S.O. 3417, "Addressing the National Energy Emergency," February 3, 2025.

[48] E.O. 14261, "Reinvigorating America's Beautiful Clean Coal Industry and Amending Executive Order 14241," 90 *Federal Register* 15517, April 14, 2025.

[49] DOE, "Critical Material List; Addition of Metallurgical Coal Used for Steelmaking," 90 *Federal Register* 22711, May 29, 2025, https://www.federalregister.gov/documents/2025/05/29/2025-09607/critical-material-list-addition-of-metallurgical-coal-used-for-steelmaking.

[50] For more on critical materials, see CRS Report R48149, *Critical Minerals and Materials for Selected Energy Technologies*, by Emma Kaboli. For more on critical minerals, see CRS Report R47982, *Critical Mineral Resources: National Policy and Critical Minerals List*, by Linda R. Rowan.

[51] E.O. 14260, "Protecting American Energy from State Overreach," 90 *Federal Register* 15513, April 14, 2025.

[52] E.O. 14262, "Strengthening the Reliability and Security of the United States Electric Grid," 90 *Federal Register* 15521, April 14, 2025.

fuels in such a way that reduces their accredited capacity. An example of fuel conversion that could reduce accredited capacity is replacing a coal-fired power plant with a solar farm.[53]

A presidential proclamation titled "Regulatory Relief for Certain Stationary Sources to Promote American Energy" delays by two years the implementation of a regulation making certain emissions standards for power plants more stringent.[54] Following the publication of the proclamation, the Administration published a list of facilities/sources that received exemptions from the more stringent standards.[55]

Coal consumption, production, employment, and exports are largely driven by industry decisions based on market conditions, rather than executive or legislative direction. Likewise, increases in coal production on federal lands largely depend on interest from coal developers. Favorable executive actions in the first Trump Administration did not reverse coal power plant retirements, increase employment in the coal sector, or increase coal production. It remains to be seen whether actions taken by the second Trump Administration and the 119th Congress will impact coal power plant retirements and U.S. coal production.

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[53] For more information, see CRS In Focus IF12991, *Federal Power Act: The Department of Energy's Emergency Authority*, by Ashley J. Lawson.

[54] White House, "Regulatory Relief for Certain Stationary Sources to Promote American Energy," presidential proclamation, April 8, 2025, https://www.whitehouse.gov/presidential-actions/2025/04/rregulatory-relief-for-certain-stationary-sources-to-promote-american-energy/.

[55] See "Annex I Stationary Sources List" at "U.S. Environmental Protection Agency, Presidential Proclamation – Regulatory Relief for Certain Stationary Sources to Promote American Energy," April 14, 2025, https://www.epa.gov/stationary-sources-air-pollution/presidential-proclamation-regulatory-relief-certain-stationary.