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Metallurgical Coal: Frequently Asked Questions

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SUMMARY

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Metallurgical coal, also called *met coal* or *coking coal*, is coal that is used for steel production. It differs from *steam coal*, which is used to generate electricity, in that it typically has a lower ash and sulfur content than steam coal.

Coal production in the United States is geographically concentrated, though not all states that produce coal also produce met coal. For example, Wyoming, the largest coal-producing state, does not produce met coal. Seven U.S. states produced met coal in 2023: West Virginia (46% of U.S. total), Alabama (12%), Virginia (8%), Pennsylvania (8%), Kentucky (3%), Maryland (1%), and Colorado (< 1%). In 2023, the United States was the sixth-largest met coal consumer in the world; the People's Republic of China (PRC, or China) was the largest and accounted for 62% of the world's total consumption in the same year. Because met coal consumption in the United States has been decreasing fairly steadily since 1980, U.S.-produced met coal is increasingly exported abroad.

The United States is the second-biggest met coal exporter in the world, (accounting for 14% of global met coal exports in 2024). Australia is the top exporter (accounting for 43%). China is the top importer (accounting for 41% of all global met coal imports in 2024). In 2023, the United States exported about three-quarters of its total production of met coal. Since 2000, met coal has made up the majority of coal exported annually by the United States (with the rest of the exports being steam coal), ranging from lows of 51% in 2003 and 2023 to a high of 69% in 2010. In 2024, met coal accounted for 53% of U.S. coal exports.

In 2024, three Asian countries were among the top five export markets for U.S. met coal (these are, in order, India, China, Brazil, the Netherlands, and Japan). This highlights a shift of U.S. met coal exports toward Asia, as European countries have sought to lower their coal imports and consumption. Exports to North America, South America, Europe, and Africa have declined from 2010 to 2024. Because China is the United States' second-largest market for met coal exports behind India, sustained retaliatory tariffs on met coal could impact future prices and pose certain market risks to export-oriented U.S. met coal projects.

In May 2025, the U.S. Department of Energy (DOE) designated met coal as a "critical material," which could make met coal projects eligible for expedited permitting, funding opportunities, and more. However, some funding for projects related to critical minerals may be subject to change due to updates made through the current budget reconciliation process. If met coal is designated as a critical mineral, it could be impacted by other legislation Congress is considering for critical minerals, including the Critical Mineral Consistency Act of 2025 (H.R. 755, S. 714), which looks to align the U.S. Geological Survey (USGS) critical minerals list and the DOE critical materials list, and the Finding ORE Act (H.R. 2969, S. 1463), which allows for the Department of the Interior to enter into memoranda of understanding to expand mapping of critical minerals. The Senate Energy and Natural Resources Committee has ordered the Critical Mineral Consistency Act to be reported. The Senate Foreign Relations Committee has reported the Finding ORE Act, and it has been placed on the Senate calendar.

P.L. 119-21, the FY2025 reconciliation law commonly known as the One Big Beautiful Bill Act, made met coal eligible for the advanced manufacturing production credit (AMPC), a tax credit for the production of clean energy that was enacted under P.L. 117-169, commonly known as the Inflation Reduction Act of 2022 (IRA).

This report provides answers to frequently asked questions about met coal in the context of recent executive and congressional actions. It discusses met coal production and uses, the global market for met coal, and other relevant topics. This report is intended to serve as a quick reference for information related to metallurgical coal.

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Introduction

In Executive Order (E.O.) 14261, titled "Reinvigorating America's Beautiful Clean Coal Industry and Amending Executive Order 14241," the Trump Administration directed the Secretary of Energy to determine whether to designate coal used in steelmaking, also known as *metallurgical (met) coal*, as a "critical material" and directed the Secretary of the Interior to determine whether to designate met coal as a "critical mineral." (For definitions of these terms, see the "Met Coal as a Critical Mineral and Critical Material" section in this report.)[1] In response to E.O. 14261, the Department of Energy (DOE) designated met coal as a critical material in May 2025.[2] The Department of the Interior (DOI) has not released its 2025 list of critical minerals, so it remains to be seen whether met coal will be added to the list.

This report is intended to serve as a quick reference for information about metallurgical coal. The report begins with a brief background on the properties of met coal. The report then provides answers to frequently asked questions about met coal in the context of E.O. 14261 and other recent executive actions. Topics include met coal production and uses, the global market for met coal, and other relevant concerns. The report concludes with discussions of met coal as a critical mineral and material and of Congressional action and debate on the topic. P.L. 119-21, the FY2025 reconciliation law commonly known as the One Big Beautiful Bill Act, made met coal eligible for the advanced manufacturing production credit (AMPC), a tax credit for the production of clean energy parts that was enacted under P.L. 117-169, commonly known as the Inflation Reduction Act of 2022 (IRA). If met coal is designated as a critical mineral, it could be impacted by other legislation Congress is considering for critical minerals. Legislation related to critical minerals that has been introduced includes the Critical Materials Future Act of 2025,[3] the Critical Minerals Security Act of 2025,[4] the Critical Mineral Consistency Act of 2025,[5] the Intergovernmental Critical Minerals Task Force Act,[6] and the Finding ORE Act.[7]

The most recent available data are used for the report; 2024 data are available for some topics, while others rely on 2023 data. Preference is given to data from U.S. government sources, such as the U.S. Energy Information Administration (EIA), where available.

Properties of Met Coal

What is met coal, and how is it used?

Metallurgical coal, sometimes called *met coal* or *coking coal*, is coal that is used for steel production. Met coal is primarily used to produce *coke*, which results from heating coal with a

[1] Executive Order (E.O.) 14261 of April 8, 2025, "Reinvigorating America's Beautiful Clean Coal Industry and Amending Executive Order 14241," 90 *Federal Register* 15517, April 14, 2025.

[2] U.S. Department of Energy (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-met-coal-used-for-steelmaking.

[3] S. 596.

[4] S. 789.

[5] H.R. 755; S. 714.

[6] H.R. 3198; S. 823.

[7] H.R. 2969; S. 1463.

specific set of properties in the absence of oxygen. Coke is then mixed with iron ore and limestone, and the resultant mixture is heated and processed to make steel.[8]

Met coal is a particular *grade* of coal, or a category of coal that has appropriate characteristics for a specific use. The U.S. Geological Survey (USGS) defines *grade* as "a term indicating the nature of coal as mainly determined by the sulfur content and the amount and type of ash."[9] The USGS explains that met coal typically has less than 1% sulfur and less than 8% ash. Another example of a use-based grade of coal is *steam coal*, also known as *thermal coal*, which is used primarily in electricity generation.

Met coal is typically composed of a blend of a specific *rank* of coal called *bituminous coal*. While coal grade is determined by use, coal rank is determined by chemical and physical composition, including energy content, volatile matter content, and fixed carbon.[10] Generally, coal rank reflects the temperature and pressure conditions under which it formed. Rank initially increases based on energy content, with further criteria establishing higher ranks based on volatile matter content and fixed carbon. Among low-rank coals with low energy content are *lignite* (lowest rank) and *subbituminous*. Medium-rank coal with higher energy content is generally known as *bituminous*. High-rank coal with the highest energy content is generally known as *anthracite*.

How does met coal differ from steam coal?

Steam coal, also referred to as *thermal coal*, is coal that is used to generate steam for electrical power plants, while *met coal*, also referred to as *coking coal*, is primarily used to produce steel. The EIA defines *steam coal* as encompassing all coal not classified as met coal.[11]

Met coal can be used for the same purposes as steam coal, but because met coal is less abundant than steam coal, it generally commands a higher price than steam coal.[12] Therefore, steam coal is the type of coal most often used for electricity generation.

While met coal can be used for the same purposes as steam coal, the reverse is generally not true. Coal that can be burned to generate electricity may not be appropriate to use as coking coal. Generally, met coal must have a low ash and sulfur content to avoid contaminating coke made by heating the coal. Because the physical and chemical properties of coke require coal inputs to meet certain specifications, limited opportunities exist to use thermal coal as a substitute for met coal. However, if a combination of properties from multiple types of coal can yield an acceptable coke product, non-met coal might provide a portion of this combination in a process called *blending.*

[8] See Kentucky Geological Survey, "Coal to Make Coke and Steel," January 5, 2023, https://www.uky.edu/KGS/coal/coal-for-cokesteel.php.

[9] Gordon H. Wood Jr. et al., *Coal Resource Classification System of the U.S. Geological Survey*, U.S. Geological Survey (USGS), Circular 891, 1983, p. 10, https://pubs.usgs.gov/circ/1983/0891/report.pdf.

[10] *Volatile matter* refers to the nonwater components in coal that turn into gas when coal is heated at high temperature in the absence of air. *Fixed carbon* is the combustible material remaining when moisture, ash, and volatile matter are removed.

[11] See definitions for *metallurgical coal* and *steam coal* in U.S. Energy Information Administration (EIA), *Glossary*, accessed May 4, 2025, https://www.eia.gov/tools/glossary/index.php?id=coal%20grade.

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

Met Coal in the United States

How much met coal does the United States produce, and which states produce the most met coal?

In 2023, the United States produced about 66,000 thousand short tons[13] (66,000 Mst) of met coal, according to EIA.[14] U.S. met coal production has been increasing since 2020, after having fallen by about 20% from 2019 to 2020 (from about 71,000 Mst to 56,000 Mst).

Seven states produced met coal in 2023 (see **Figure 1**):[15]

1. West Virginia (30,000 Mst in 2023, or 59% of total U.S. production);
2. Alabama (8,000 Mst, or 15% of production);
3. Virginia (6,000 Mst, or 11% of production);
4. Pennsylvania (5,000 Mst, or 10% of production);
5. Kentucky (2,000 Mst, or 4% of production);
6. Maryland (337 Mst, or 1% of production); and
7. Colorado (74 Mst, or less than 1% of production).[16]

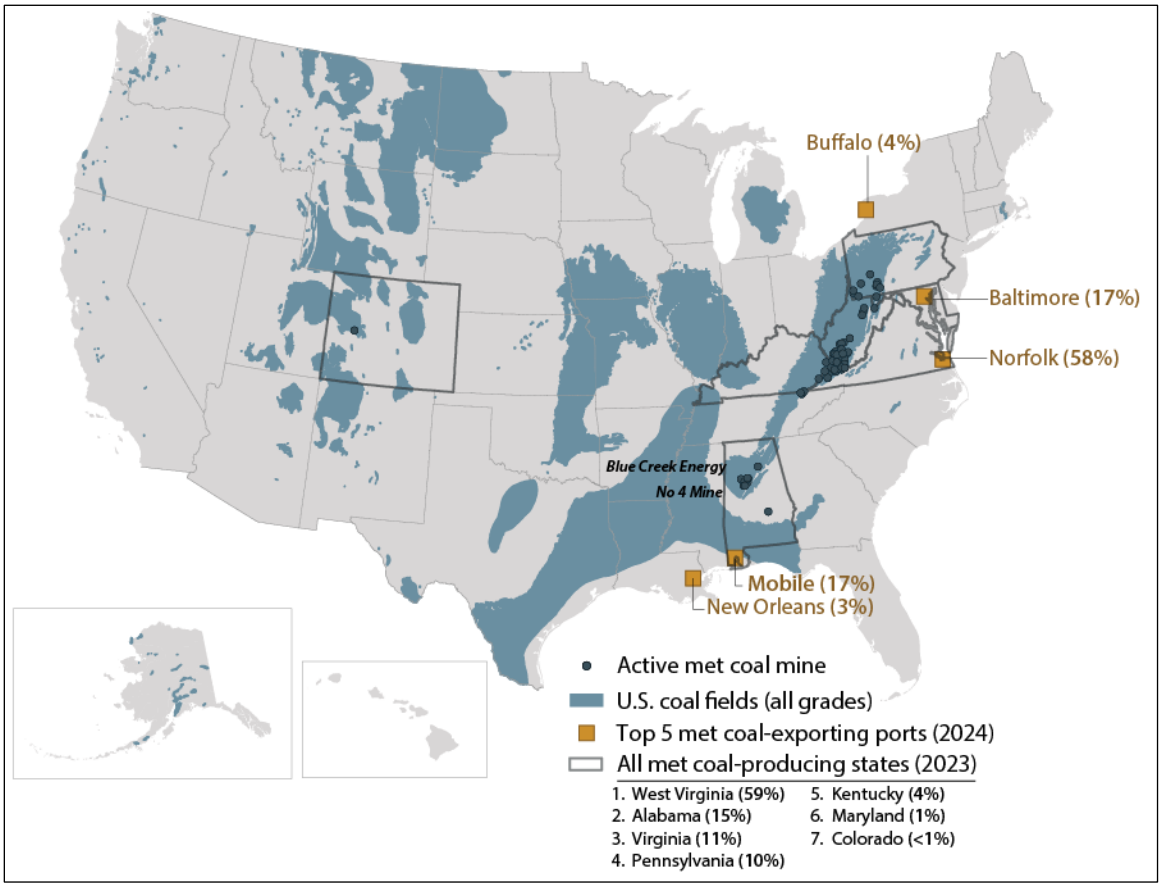
[13] A *short ton* is a physical unit of measurement used for coal by the EIA. Most international data sources use *metric ton*. One short ton is 0.9071847 metric tons. One metric ton is 1.10231 short tons. See EIA, "How Do I Convert Between Short Tons and Metric Tons?," October 30, 2023, https://www.eia.gov/tools/faqs/faq.php?id=7&t=2.

[14] Table 8, "Coal Disposition by State, 2023," in EIA, *Annual Coal Report 2023*, October 2024, p. 13, https://www.eia.gov/coal/annual/pdf/acr.pdf.

[15] State numbers total to about 51,300 thousand short tons (51,300 Mst). EIA's source notes explain the discrepancy between this number and total U.S. production of 66,000 Mst as due to the following: (1) adjustments reflecting differences in source data and (2) additions of estimated quantity of coal exported by coal brokers, coal traders, and coal terminals (while state-level totals and U.S. subtotal of 51,300 Mst include the quantity of coal exported by coal mines only). See source notes for Table 8, "Coal Disposition by State, 2023," in EIA, *Annual Coal Report 2023*, October 2024, p. 13, https://www.eia.gov/coal/annual/pdf/acr.pdf.

[16] Production numbers are rounded to the nearest thousand Mst, except where production is less than 1,000 Mst (Maryland and Colorado). In these cases, numbers are left unrounded.

Figure 1. U.S. Coal Fields, Met Coal Mines, and Exporting Ports

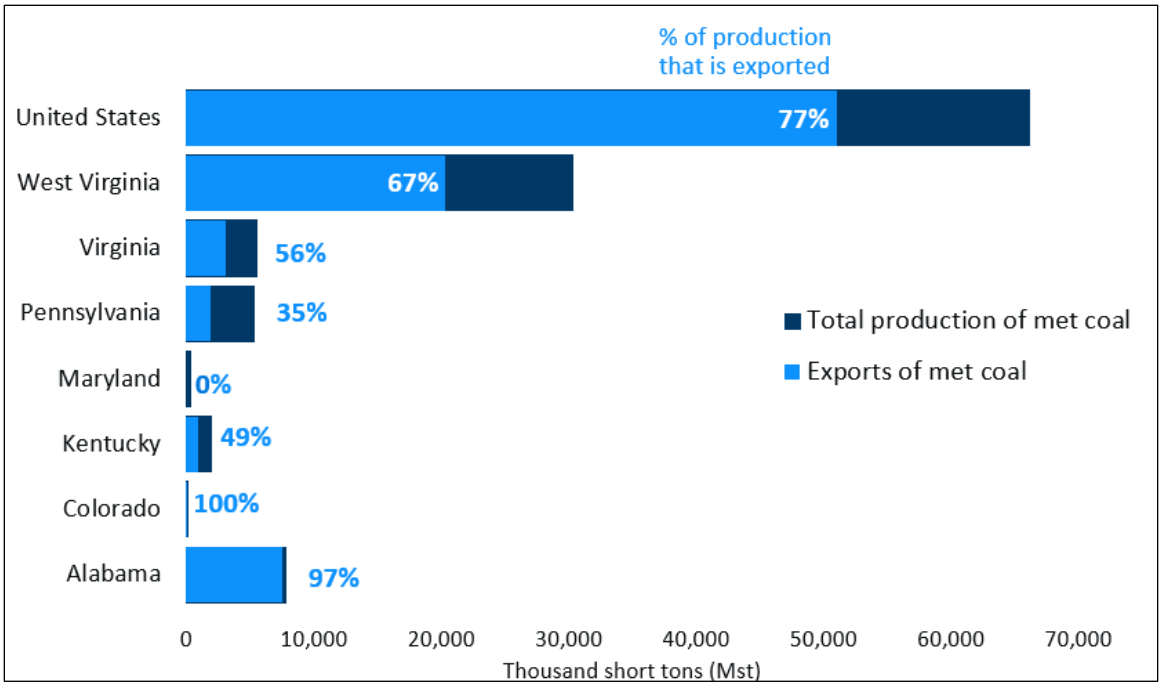


Sources: CRS graphic created by Calvin DeSouza. Active met coal mines from S&P Global, "S&P Capital IQ Pro," https://www.spglobal.com/market-intelligence/en/solutions/products/sp-capital-iq-pro; ports from Table 15, "Met Coal Exports by Customs District," in U.S. Energy Information Administration (EIA), *Quarterly Coal Report: October-December 2024*, April 2025, https://www.eia.gov/coal/production/quarterly/; producing states from Table 8, "Coal Disposition by State, 2023," in EIA, *Annual Coal Report 2023*, October 2024, p. 13, https://www.eia.gov/coal/annual/pdf/acr.pdf; and map geography based on data from EIA, the U.S. Geological Survey, the Alaska Department of Natural Resources, and Esri.

Notes: Coal fields pictured include all grades of coal. Data used are the most recent available: Production percentages are based on 2023 data, and port export percentages are based on 2024 data.

Coal production in the United States is geographically concentrated, though not all states that produce coal also produce met coal. Almost half of met coal produced in the United States in 2023 was produced in West Virginia (see **Figure 2**). Wyoming, the largest coal-producing state, mined about 44% of total U.S. coal production that year, none of which was met coal.

Figure 2. Met Coal Production and Exports by State, 2023



Source: Table 5, "Coal Disposition by State, 2023," in U.S. Energy Information Administration, *Annual Coal Report 2023*, October 2024, p. 13, https://www.eia.gov/coal/annual/pdf/acr.pdf.

Note: See source for data notes and caveats.

How much met coal does the United States consume, and how does this compare to other countries' consumption?

The United States consumed about 16,000 Mst of met coal in 2023, the most recent year for which data are available from EIA.[17] In 2023, the United States consumed the sixth-most met coal in the world, accounting for about 1% of global met coal consumption. The top five met coal consumers in 2023, in order, were the People's Republic of China (PRC, or China) (706,000 Mst); India (133,000 Mst); Russia (77,000 Mst); Japan (43,000 Mst); and South Korea (26,000 Mst). In 2023, China accounted for 62% of the world's total met coal consumption.[18]

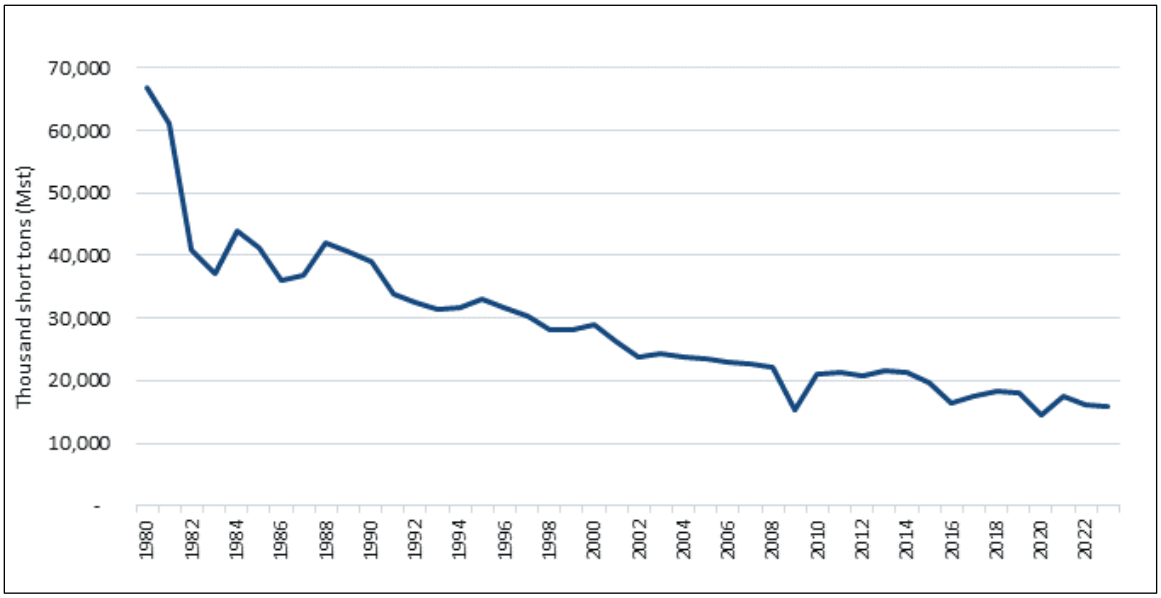
Consumption of met coal in the United States has decreased fairly steadily since 1980 (see **Figure 3**). This decrease aligns with declines in U.S. production of met coal, and all coal, since 2008.[19] Consumption in 2023 was less than a quarter of consumption in 1980. Met coal produced in the United States is increasingly exported abroad (see **Figure 4** and "Imports and Exports of Met Coal").

[17] Table ES-3, "Coke Overview, 1949-2023," in EIA, *Annual Coal Report 2023*, October 2024, p. xiv, https://www.eia.gov/coal/annual/pdf/acr.pdf.

[18] See row for "Metallurgical coal" in EIA, "Coal and Coke," dataset accessed May 9, 2025, https://www.eia.gov/international/data/world/coal-and-coke/coal-and-coke-consumption.

[19] Jonathan Church, "U.S. Production of All Types of Coal Has Declined over the Past Two Decades," *Today in Energy*, EIA, April 8, 2025, https://www.eia.gov/todayinenergy/detail.php?id=64924.

Figure 3. U.S. Met Coal Consumption, 1980-2023



Source: See row for "Metallurgical coal" at U.S. Energy Information Administration, "Coal and Coke," accessed May 9, 2025, https://www.eia.gov/international/data/world/coal-and-coke/coal-and-coke-consumption.

Note: See source for data notes and caveats.

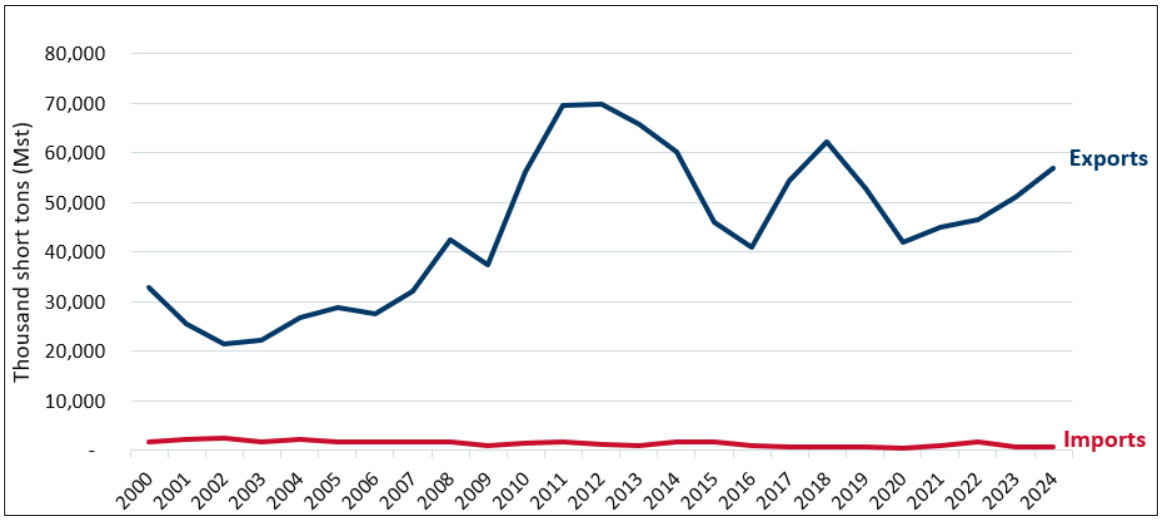
What is the Warrior Met Coal Mines project, and what does it mean that the Trump Administration has named it a "transparency project"?

Subsidiaries of Warrior Met Coal, Inc. (Warrior Met) have submitted applications to the Bureau of Land Management to expand current operations for two met coal mines in the Warrior Basin in Alabama—Mine No. 4 and Blue Creek Mine No. 1. The parent company, Warrior Met Coal Intermediate Holdco, LLC, was the 15th-largest U.S. coal producer in 2023, accounting for about 1.3% of total (all coal) U.S. coal production.[20] The coal on the lands listed in the applications is administered by the U.S. Bureau of Land Management. Combined, the applications seek to lease an additional 14,040 acres of land and extract 57,500 Mst of met coal from expanded underground operations at the two mines.[21]

[20] 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.

[21] Bureau of Land Management, "Notice of Intent to Prepare an Environmental Impact Statement and to Initiate Scoping for Federal Coal Lease Applications for Two Leases to Expand Operations at the Warrior Met Coal Mines, Tuscaloosa County, Alabama," 89 *Federal Register* 34264, April 30, 2024.

Figure 4. U.S. Met Coal Imports and Exports



Source: "Quantity & price of coal imports & exports" in U.S. Energy Information Administration, "Coal Data Browser," https://www.eia.gov/coal/data/browser/.

In April 2025, the Permitting Council, formerly known as the Federal Permitting Improvement Steering Council, designated Warrior Met Coal Mines as a *FAST-41*[22] *Transparency Project.*[23] According to the Permitting Council website, FAST-41 Transparency Projects are "projects directed by the Executive Director of the Federal Permitting Improvement Steering Council to be posted on the [Permitting Council's Permitting] Dashboard in the interests of transparency."[24] A Transparency Project designation does not exempt or waive any federal permitting or environmental review requirements under other laws to speed project delivery.[25]

The designation is in response to direction from the E.O. titled "Immediate Measures to Increase American Mineral Production" (see "Met Coal as a Critical Mineral and Critical Material").[26] The E.O. directs the chair of the National Energy Dominance Council[27] to submit a list of mineral production projects to the executive director of the Permitting Council, who then must publish

[22] FAST-41 refers to Title 41 of the Fixing America's Surface Transportation Act (FAST Act; P.L. 114-94; 42 U.S.C. §4370m–1(a)). The FAST Act established the Federal Permitting Improvement Steering Council (FPISC) in 2015.

[23] See Permitting Council, "Warrior Met Coal Mines," *Permitting Dashboard*, https://www.permits.performance.gov/permitting-project/fast-41-transparency-projects/warrior-met-coal-mines; and White House, "Trump Administration Advances First Wave of Critical Mineral Production Projects," press release, April 18, 2025, https://www.whitehouse.gov/articles/2025/04/trump-administration-advances-first-wave-of-critical-mineral-production-projects/.

[24] Permitting Council, "FAST-41 Transparency Projects," *Permitting Dashboard*, accessed May 12, 2025, https://www.permits.performance.gov/projects/transparency-projects. Note that *FAST-41 Transparency Projects* are separate from *FAST-41 Covered Projects*. FAST-41 Covered Projects are identified as "covered" under Division D, Title 41, of the FAST Act (P.L. 114-94), which created a set of procedures and funding authorities to improve the federal environmental review and authorization process for these "covered" infrastructure projects.

[25] FPISC, "FAST-41 Program," December 11, 2024, https://www.permits.performance.gov/documentation/fast-41-fact-sheet.

[26] E.O. 14241 of March 20, 2025, "Immediate Measures to Increase American Mineral Production," 90 *Federal Register* 14241, March 25, 2025.

[27] E.O. 14213 of February 14, 2025, "Establishing the National Energy Dominance Council," 90 *Federal Register* 9945, February 20, 2025. E.O. 14213 established the National Energy Dominance Council (NEDC) to advise the President on "how best to exercise his authority to produce more energy to make America energy dominant" and on "improving the processes for permitting, production, generation, distribution, regulation, transportation, and export of all forms of American energy, including critical minerals," among other duties.

any projects selected as transparency projects within 15 days. Warrior Met Coal Mines was the only coal project selected in the "first wave" of projects.

Warrior Met Coal Mines is a FAST-41 Transparency Project, but it is not a *FAST-41 Covered Project.*[28] The statutory criteria for eligibility under FAST-41 are codified in the definition of *covered project*.[29] Among other things, the criteria state that, to be covered, a project must require authorization or environmental review by a federal agency and involve the construction of specified infrastructure in the United States.[30]

Imports and Exports of Met Coal

How much met coal is traded globally, and what role does the United States play?

The United States is the world's second-largest met coal exporter, behind Australia. According to 2024 data from S&P Global,[31] Australia exported 153 million metric tons (153 MMt) of met coal in 2024, accounting for 43% of global met coal exports. The United States exported 52 MMt, or 14% of global met coal exports. Other top exporters in 2024 were Mongolia (50 MMt, also 14% of global exports), Russia (43 MMt, 12%), and Canada (30 MMt, 8%).[32] These top five met-coal-exporting countries accounted for 83% of total global met coal exports in 2024.

The met coal import market is similarly concentrated in the top five importing countries, which accounted for 84% of total global met coal imports in 2024. According to S&P Global, China was the top importer, having imported 122 MMt of met coal in 2024, or 41% of all global met coal imports. India followed (57 MMt, or 19%), then Japan (39 MMt, or 13%), the European Union (35 MMt, or 12%), and South Korea (32 MMt, or 11%).[33]

[28] Title 41 of the FAST Act (FAST-41) authorized a streamlined administrative process for coordinating federal permitting under various other laws, and for coordinating federal environmental reviews under the National Environmental Policy Act (NEPA), for certain types of large infrastructure projects. 42 U.S.C. §§4370m–4370m-12. FAST-41 defines a *covered project* as

> any activity in the United States that requires authorization or environmental review by a Federal agency involving construction of infrastructure for renewable or conventional energy production, electricity transmission, surface transportation, aviation, ports and waterways, water resource projects, broadband, pipelines, manufacturing, semiconductors, artificial intelligence and machine learning, high-performance computing and advanced computer hardware and software, quantum information science and technology, data storage and data management, cybersecurity, carbon capture, energy storage, or any other sector as determined by a majority vote of the [Permitting] Council. (42 U.S.C. §4370m(6))

[29] FPISC, "FAST-41 Program," December 11, 2024, https://www.permits.performance.gov/documentation/fast-41-fact-sheet.

[30] FPISC, "FAST-41 Program," December 11, 2024, https://www.permits.performance.gov/documentation/fast-41-fact-sheet.

[31] S&P Global is a subscription service. These data are available to subscribers only. Trade data involving reporting from multiple global customs agencies is reported in million metric tons (MMt) for purposes of standardization. Data reported by U.S. industries and agencies (e.g., EIA) is generally reported in metric short tons (st).

[32] "Met Coal Imports and Exports (MMt)," S&P Global Market Intelligence, S&P Global Commodity Insights; S&P Global Market Intelligence Global Trade Analytics Suite.

[33] "Met Coal Imports and Exports (MMt)," S&P Global Market Intelligence, S&P Global Commodity Insights; S&P Global Market Intelligence Global Trade Analytics Suite.

How much met coal does the United States export?

In 2023,[34] the United States exported about 51,000 Mst of met coal, or about three-quarters of total U.S. production, and consumed the rest. West Virginia, the top met-coal-producing state, exported 67% of the met coal produced in the state in 2023 (see **Figure 2**). Alabama, the state that produced the second-most met coal, exported 97% of its met coal. Virginia, the third-highest met coal producer, exported about 56% of the met coal it produced.

From 2000 to 2024, met coal made up the majority of coal exported annually by the United States, accounting for as much as two-thirds of coal exports in some years (with steam coal covering the remaining share of exports).[35] Over this time, met coal's share of coal exports ranged from lows of 51%, in 2003 and 2023, to a high of 69% in 2010. In 2024, met coal accounted for 53% of U.S. coal exports.[36]

To which countries does the United States export met coal?

In 2024, the top importers of U.S. met coal, in order, were India (11,000 Mst), China (9,000 Mst), Brazil (7,000 Mst), the Netherlands (5,000 Mst), and Japan (4,000 Mst).[37] Exports to these five countries accounted for 63% of total U.S. met coal exports in 2024. The total amount of met coal purchased by the top five importers has increased since 2000.[38] In 2010, exports to the top five importing countries accounted for 41% of total U.S. met coal exports, and in 2000, the share was 23%.[39]

Figure 5 shows U.S. met coal exports to India, China, Brazil, the Netherlands, and Japan from 2010 to 2024. From 2010 to 2021, exports to India ranged roughly between 2,534 and 6,166 Mst; exports to India increased sharply after 2021, rising to nearly 10,587 Mst by 2024. In 2024, the United States exported over 300% more met coal to India than it did in 2010.

U.S. met coal exports to China in 2024 were more than twice the amount exported to China in 2010. However, in 2015, U.S. met coal exports to China fell to almost zero due to a slump in China's domestic demand for steel, which resulted in lower met coal demand and a corresponding plunge in global coal prices.[40] U.S. met coal exports to China have increased annually since 2021, reaching almost 9,000 Mst in 2024.

U.S. exports of met coal to China began increasing after 2020 due to a mix of factors, including (1) renewed demand from China following COVID-19-related declines and (2) heightened

[34] This report uses EIA data for coal production from U.S. states. The most recent EIA coal data are for 2023.

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

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

[37] Table 11, "U.S. Metallurgical Coal Exports," in EIA, *Quarterly Coal Report, October-December 2024,* April 2, 2025, p. 16, https://www.eia.gov/coal/production/quarterly/.

[38] 2000 is the earliest year in the "Quantity & price of coal imports & exports" dataset in EIA, "Coal Data Browser," https://www.eia.gov/coal/data/browser/.

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

[40] Peter Marsters and Trevor Houser, "The Hidden Cause of America's Coal Collapse," Rhodium Group, February 22, 2016, https://rhg.com/research/the-hidden-cause-of-americas-coal-collapse/.

domestic demand in China for steel and other manufacturing inputs resulting from the government's policies to boost infrastructure spending following the pandemic.[41]

Changes in U.S. met coal exports to Brazil, the Netherlands, and Japan over this time period have been comparatively smaller. Between 2010 and 2024, U.S. met coal exports

- to Brazil declined by 6% (from 7,854 Mst to 6,941 Mst);
- to the Netherlands declined by 6% (from 5,433 Mst to 5,081 Mst); and
- to Japan increased by 43% (from 2,972 Mst to 4,252 Mst).

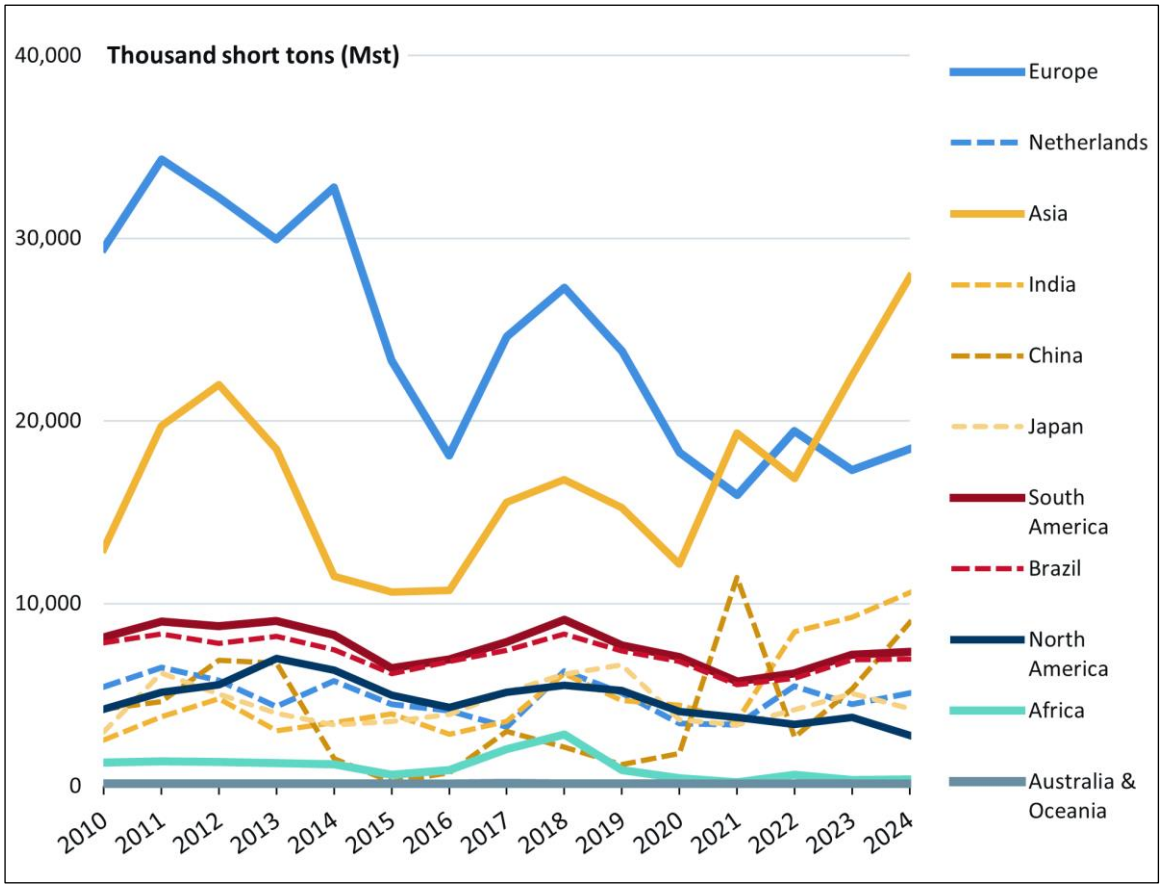
Figure 5 also displays trends in U.S. met coal exports to different regions from 2010 through 2024. Exports to Asia increased more than twofold, and exports to all other regions declined. Data from EIA show that between 2010 and 2024, U.S. met coal exports

- to Asia increased by 115% (from 12,975 Mst to 27,897 Mst);
- to Europe decreased by 37% (from 29,457 Mst to 18,472 Mst);
- to South America decreased by 10% (from 8,153 Mst to 7,363 Mst);
- to North America decreased by 35% (from 4,222 Mst to 2,764 Mst); and
- to Africa decreased by 72% (from 1,297 Mst to 360 Mst).

[41] Lauri Myllyvirta, "What Is Causing the Record Rise in Both China's Coal Production and Imports?," Centre for Research on Energy and Clean Air, June 8, 2023, https://energyandcleanair.org/record-rise-in-chinas-coal-production-and-imports/.

Figure 5. U.S. Met Coal Exports by Region and to India, China, Brazil, the Netherlands, and Japan, 2010-2024

Figure is interactive in the HTML version of this report.



Source: Table 11, "U.S. Metallurgical Coal Exports," in fourth-quarter editions of U.S. Energy Information Administration (EIA), *Quarterly Coal Report*, https://www.eia.gov/coal/production/quarterly/.

Notes: EAI does not report data for the region "Australia & Oceania" for most years. For the years in which data are reported, exports are low compared to exports to other regions: for 2016, 0.021 Mst (21 short tons); for 2017, 47 Mst (47,000 short tons); for 2021, 0.03 Mst (30 short tons); and for 2024, 0.068 Mst (68 short tons).

How could retaliatory tariffs impact U.S. met coal exports?[42]

Between February and May 2025, the Trump Administration imposed a series of escalating tariffs on imports from China, citing provisions of the International Emergency Economic Powers Act.[43] In February 2025, China began imposing retaliatory tariffs, first of 10%-15% on a selected range of U.S. exports, including met coal (which faced a 15% tariff). Following the Trump Administration's announcement of "reciprocal" tariffs in April 2025, China retaliated with a blanket additional 34% tariff on all U.S. imports. This retaliatory tariff eventually reached 125%

[42] Michael Sutherland, CRS Analyst in International Trade and Finance, is the author of this section.

[43] For a complete timeline of these tariffs, as well as China's retaliatory tariffs, see CRS In Focus IF12990, *U.S.-China Tariff Actions Since 2018: An Overview*, by Karen M. Sutter.

as both sides retaliated with higher tariffs. Because these tariff actions were cumulative, at their apex, China's tariffs on U.S. met coal exports reached 140%.

On May 12, 2025, the United States and China agreed to suspend the retaliatory tariffs announced in April and set a parallel 10% tariff for 90 days. Prior tariff actions were not rescinded, leaving China's current tariff rate on U.S. met coal exports at 25%.[44]

Because China is the United States' second-largest market for met coal exports behind India, sustained retaliatory tariffs on met coal could decrease demand for U.S. met coal exports and pose certain market risks to export-oriented U.S. met coal projects. A March 2025 analysis by S&P Global indicates that as a result of China's initial 15% tariff on U.S. met coal, the volume of U.S. global met coal exports in February 2025 declined by approximately 18.8% year on year.[45]

Which U.S. ports export the most met coal?

U.S. met coal exports are predominantly sent abroad from ports with coal export facilities on the Gulf Coast, East Coast, and Great Lakes. These ports are geographically closer to their nearest met coal mines than West Coast ports are to Western mines (see **Figure 1**). Most U.S. met coal is exported by waterborne vessel, but some exports to Canada may be by rail.[46]

Norfolk, VA, exported the most U.S. met coal in 2024 (33,073 Mst, or 58% of total U.S. met coal exports), followed by Mobile, AL (9,910 Mst, or 17%); Baltimore, MD (9,632 Mst, or 17%); Buffalo, NY (2,389 Mst, or 4%); and New Orleans, LA (1,488 Mst, or 3%).[47] Combined, these five ports accounted for 99% of all U.S. met coal exports in 2024.

Norfolk, VA, has been the largest met coal export facility in the United States every year since 2010. Norfolk accounted for over half of U.S. met coal exports each year from 2010 to 2024 except for three years (2011, 2012, and 2015).

Does the United States import any met coal?

The United States produces most of the met coal it consumes, but it imports coal when it is cheaper than purchasing and transporting domestically produced met coal.[48] All or most met coal imports in any given year come from Canada. The United States has imported met coal from

[44] Ministry of Commerce of the People's Republic of China, "Announcement of the State Council Tariff Commission Regarding Adjustment of Additional Tariff Measures on Imports from the United States," press release, May 13, 2025, https://gss.mof.gov.cn/gzdt/zhengcefabu/202504/t20250409_3961684.htm (Chinese only).

[45] Paul Bartholomew and Sylvia Cao, "Commodity Quarterly: Met Coal Q1 2025," *S&P Global*, April 21, 2025.

[46] It is unclear exactly how much met coal is exported by waterborne vessel and how much is exported by other means. Published data from the U.S. Army Corps of Engineers that tracks waterborne exports of coal show that no coal was exported via waterborne freight from Buffalo, NY, in 2023. Data from EIA show that 2,819 Mst of met coal was exported from Buffalo, NY, in 2023. Because the Army Corps of Engineers did not report any waterborne coal exports from Buffalo, this met coal may have departed by rail or truck. Army Corps of Engineers data do not specify met coal or steam coal. See "Buffalo, NY," in U.S. Army Corps of Engineers, *Waterborne Commerce of the United States 2023: Part 3 Waterways and Harbors Great Lakes*, pp. 57-58, April 2025, https://ndclibrary.sec.usace.army.mil/resource?title=%20Waterborne%20Commerce%20of%20the%20United%20States%202023:%20Part%203%20Waterways%20and%20Harbors%20Great%20Lakes&documentId=75e0d7fc-809b-4c0e-8ae9-a41754e491a8; *and* Table 15, "Met Coal Exports by Customs District," in EIA, *Quarterly Coal Report: October-December 2023*, April 2024, https://www.eia.gov/coal/production/quarterly/archive/012123q4.pdf.

[47] Table 15, "Met Coal Exports by Customs District," in EIA, *Quarterly Coal Report: October-December 2024*, April 2025, https://www.eia.gov/coal/production/quarterly/pdf/qcr_all.pdf.

[48] EIA, "Coal Explained: Coal Imports and Exports," September 14, 2023, https://www.eia.gov/energyexplained/coal/imports-and-exports.php.

Canada every year since at least 2000, the oldest data EIA tracks in the "Coal Data Browser." In 2024, all met coal imports (710 Mst) came from Canada; 43% of these imports arrived via Detroit, MI, and the remaining 57% arrived via Great Falls, MT.[49]

During many years, Canada has been the only country from which the United States has imported met coal. Other countries the United States has imported met coal from since 2010 include China (2012 and 2016), Colombia (2012-2016, 2018-2019), Germany (2016-2021), Indonesia (2014), New Zealand (2012), Poland (2011), Russia (2011), and Venezuela (2012).[50]

The United States exports much more met coal than it imports. For example, in 2024, the United States exported over 80 times the amount of met coal it imported (see **Figure 4**).

Met Coal as a Critical Mineral and Critical Material[51]

What are critical minerals and materials—and how do they differ?

Critical minerals and materials are commodities designated by DOI (via the USGS) and DOE. The Energy Act of 2020 (Division Z of the Consolidated Appropriations Act, 2021, P.L. 116-260) codified updated definitions of *critical minerals* and *critical materials*. The USGS maintains a list of critical minerals, and DOE maintains a list of critical materials for energy technologies. A *critical mineral*, according to DOE's summary of the Energy Act of 2020, is defined as

> any mineral, element, substance, or material designated as critical by the Secretary of the Interior, acting through the Director of the U.S. Geological Survey.[52]

A *critical material* is defined as

> any non-fuel mineral, element, substance, or material that the Secretary of Energy determines: (i) has a high risk of supply chain disruption; and (ii) serves an essential function in one or more energy technologies, including technologies that produce, transmit, store, and conserve energy; or
>
> a critical mineral, as defined by the Secretary of the Interior.[53]

The critical minerals list and the critical materials list have many commodities in common, but some differences arise because of different agency focuses in developing these lists. The USGS critical minerals list evaluates supply of mineral commodities across industries, including assessing mineral resources and reserves. The DOE critical materials list is focused specifically on commodities that are relevant to the energy industry, including meeting projected demand for various energy technologies.

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

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

[51] Emma Kaboli, CRS Analyst in Energy Policy, is the author of this section.

[52] DOE, "What Are Critical Materials and Critical Minerals?," https://www.energy.gov/cmm/what-are-critical-materials-and-critical-minerals.

[53] DOE, "What Are Critical Materials and Critical Minerals?"

How could recent executive actions on critical minerals policy impact the production of met coal?

The Trump Administration is pursuing initiatives to expedite critical minerals production. Critical minerals are mentioned in multiple E.O.s that touch on critical minerals policy.[54] One E.O., "Immediate Measures to Increase American Mineral Production" (hereinafter Critical Minerals E.O.), is focused exclusively on expanding the domestic minerals industry.[55]

The Critical Minerals E.O. cites the United States' mineral resources as a means to "create jobs, fuel prosperity, and significantly reduce our reliance on foreign nations" for these commodities.[56] It addresses some potential weaknesses in current domestic minerals policy, including the land use, processing capacity, and financing of minerals projects.

The Critical Minerals E.O. directs the National Energy Dominance Council (NEDC) and relevant agency heads to determine priority mineral projects for submission to the FAST-41 program.[57] It also directs the Departments of Defense, the Interior, Agriculture, and Energy to identify federal land suitable for the "construction and operation of private commercial mineral production enterprises," and it directs the Departments of Defense and Energy to use leases or "any other authority" deemed appropriate to advance commercial mineral production.[58]

The Critical Minerals E.O. says it intends to accelerate "Private and Public Capital Investment" in minerals production. It delegates "the authority of the President conferred by section 303 of the Defense Production Act (DPA)" to spur the production of domestic minerals, and it directs the Secretary of Defense to "add mineral production as a priority industrial capability development area for the Industrial Base Analysis and Sustainment Program." It also directs the chief executive officer (CEO) of the U.S. International Development Finance Corporation (DFC) to use authorities under the DPA, in consultation with the Secretaries of Defense, the Interior, and Energy and the Chair of the NEDC, "for the domestic production and facilitation of strategic resources the CEO deems necessary or appropriate to advance mineral production." It also directs the president of the Export-Import Bank to release guidance for financing tools under its Supply Chain Resiliency Initiative to "secure United States offtake of global raw mineral feedstock for domestic minerals processing."

If agencies implement the policies set out in the Critical Minerals E.O. and in other E.O.s that provide direction regarding critical minerals, those changes could speed up the extraction and processing of critical minerals—potentially including met coal—in the United States. DOE has already updated its critical materials list to include met coal;[59] the USGS's critical minerals list is

[54] E.O. 14156 of January 20, 2025, "Declaring a National Energy Emergency," 90 *Federal Register* 8433, January 29, 2025; E.O. 14154 of January 20, 2025, "Unleashing American Energy," 90 *Federal Register* 8353, January 29, 2025; E.O. 14285 of April 24, 2025, "Unleashing America's Offshore Critical Minerals and Resources," 90 *Federal Register* 17735, April 29, 2025; E.O. 14272 of April 15, 2025, "Ensuring National Security and Economic Resilience Through Section 232 Actions on Processed Critical Minerals and Derivative Products," 90 *Federal Register* 16437, April 18, 2025.

[55] E.O. 14241, "Immediate Measures to Increase American Mineral Production," 90 *Federal Register* 13673, March 20, 2025 (hereinafter Critical Minerals E.O.).

[56] Critical Minerals E.O.

[57] Permitting Council, "FAST-41 Covered Projects," https://www.permits.performance.gov/projects/fast-41-covered.

[58] Critical Minerals E.O.

[59] DOE, "Energy Department Designates Coal Used in Steelmaking as a Critical Material, Strengthening U.S. Energy and Manufacturing Security," press release, May 23, 2025, https://www.energy.gov/articles/energy-department-designates-coal-used-steelmaking-critical-material-strengthening-us.

expected to be released in 2025.[60] The designation of met coal as a critical mineral or material could bolster its mining, processing, and usage by making it eligible for expedited permitting, funding opportunities, and more. Some funding for projects related to critical minerals may be subject to change due to updates made through budget reconciliation.

How could recent congressional actions on critical minerals policy impact met coal production?

Legislation that has been enacted since the start of the 119th Congress could impact met coal production. In particular, provisions in P.L. 119-21, the FY2025 reconciliation law commonly known as the One Big Beautiful Bill Act, which was signed into law July 4, 2025, could impact the production of critical minerals and met coal.[61] These provisions include changes to the National Environmental Policy Act and support for domestic and international critical minerals sourcing, production, and stockpiling.[62]

P.L. 119-21 made met coal eligible for the AMPC, a tax credit for the production of clean energy parts that was enacted under the IRA (P.L. 117-169).[63] The AMPC subsidizes the domestic production of inverters, solar energy components, wind energy components, battery components, and critical minerals, with the credit amount varying according to the type of energy component (or critical mineral) produced.[64] Prior to the enactment of P.L. 119-21, the minerals qualifying for the AMPC were those listed in the 2022 edition of the USGS critical minerals list.[65] All qualifying critical minerals were eligible for a tax credit equal to 10% of their production costs.[66]

Section 70514 of P.L. 119-21 adds "metallurgical coal which is suitable for use in the production of steel" to the list of minerals qualifying for the AMPC. Qualifying metallurgical coal can be produced either in the United States or abroad and must be produced before 2030. Such coal is eligible for a credit equal to 2.5% of production costs, as opposed to 10% for other 45X critical minerals. This credit may increase the supply of metallurgical coal in the United States, thereby decreasing the price and increasing the usage of met coal, but the relatively low rate of subsidization may limit the credit's impact.

What legislation on critical minerals is the 119th Congress considering?

Multiple bills have been introduced in the 119th Congress that pertain to critical minerals policy. Met coal's designation as a critical mineral or material may mean that these bills would also

[60] USGS, "What Are Critical Minerals?," November 1, 2024, https://www.usgs.gov/programs/mineral-resources-program/science/what-are-critical-minerals-0.

[61] P.L. 119-21.

[62] P.L. 119-21.

[63] Nick Buffie, CRS Analyst in Public Finance, is the author of the two paragraphs on the advanced manufacturing production credit (AMPC).

[64] CRS In Focus IF12809, *The Section 45X Advanced Manufacturing Production Credit*, by Nicholas E. Buffie.

[65] 26 U.S.C. §45X; P.L. 117-169; and USGS, "2022 Final List of Critical Minerals," 87 *Federal Register* 10381-10382, February 24, 2022. Although the USGS and 45X minerals lists overlapped precisely, this does not mean that adding a critical mineral to the USGS list in future years would lead that mineral to qualify for the AMPC. Rather, because the AMPC lists qualifying critical minerals by name, adding a new critical mineral requires modification of existing Internal Revenue Code statute.

[66] For details, see CRS In Focus IF12809, *The Section 45X Advanced Manufacturing Production Credit*, by Nicholas E. Buffie.

pertain to met coal production, eligibility for grants, and other potential incentives. Congress may continue to introduce legislation that addresses critical minerals or may introduce bills that pertain directly to met coal. In the previous Congress, many bills on critical minerals were introduced, but only two were signed into law.[67]

Selected legislation related to critical minerals and critical materials includes the Critical Materials Future Act of 2025,[68] the Critical Minerals Security Act of 2025,[69] the Critical Mineral Consistency Act of 2025,[70] the Intergovernmental Critical Minerals Task Force Act,[71] and the Finding ORE Act.[72] The Critical Mineral Consistency Act, which looks to align the USGS critical minerals list and the DOE critical materials list, has been ordered to be reported by the Senate Energy and Natural Resources Committee. The Finding ORE Act, which allows for DOI to enter into memoranda of understanding to expand mapping of critical minerals, has been reported by the Senate Foreign Relations Committee and placed on the Senate calendar.

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[67] Recognizing the Importance of Critical Minerals in Healthcare Act of 2023, H.R. 6395; National Defense Authorization Act for Fiscal Year 2024, H.R. 2670.

[68] S. 596.

[69] S. 789.

[70] H.R. 755; S. 714.

[71] H.R. 3198; S. 823.

[72] H.R. 2969; S. 1463.

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