

Testimony of Rich Nolan President & CEO National Mining Association before the United States Senate Energy & Natural Resources Committee

Hearing to Examine Opportunities for Congress to Reform the Permitting Process for Energy and Mineral Projects

May 11, 2023

Good morning members of the committee. I am Rich Nolan, President and Chief Executive Officer of the National Mining Association (NMA). America's mining industry supplies the essential materials necessary for nearly every sector of our economy – reliable electricity generation, new technologies, healthcare, transportation, steel making and critical infrastructure, and national security. The NMA is the only national trade organization that serves as the voice of the U.S. mining industry and the hundreds of thousands of American workers it employs before Congress, the federal agencies, the judiciary and the media, advocating for public policies that will help America fully and responsibly utilize its vast natural resources. We work to ensure America has secure and reliable supply chains, abundant and affordable energy, and the American-sourced materials necessary for U.S. manufacturing, national security and economic security, all delivered under world-leading environmental, safety and labor standards. The NMA has a membership of more than 275 companies and organizations involved in every aspect of mining, from producers and equipment manufacturers to service providers.

Ever-increasing Demand For Minerals

There is widespread recognition that we are entering the most mineral and metal intensive era in human history. Consequently, the right policies to secure new domestic mineral production and our supply chains are more important than ever.

The international competition for minerals will be fierce. The European Union (EU) has unveiled its "REPowerEU Plan."¹ The United Kingdom (UK) released its

¹ Communication from the Commission to the European Parliament, The European Council, The Council, The European Economic and Social Committee and the Committee of the Regions: REPowerEU Plan, {SWD(2022)

"Resilience for the future: The UK's critical minerals strategy."² In December, Canada released its "Canadian Critical Minerals Strategy," a generational "plan to position Canada as the global supplier of choice for critical minerals and the clean technologies they enable."³ China moved much earlier and more quickly to address the risks to its mineral supply chains in 1999, when the Chinese government announced its aggressive "go global" campaign to secure raw materials.⁴

Many public analyses evaluate the demand for minerals for new technologies and energy generation. The International Energy Agency (IEA) issued a cautionary report about risks related to the mineral supply chains required for energy generation transitions.⁵ IEA and others estimate that demand for some minerals could grow by more than 40 times by 2040. According to IEA:

- Lithium demand is anticipated to grow by more than 40 times by 2040, followed by graphite, cobalt and nickel at around 20-25 times;
- Copper demand for grid infrastructure and electrification more than doubles by 2040;
- Demand for cobalt is expected to be anywhere from six to 30 times higher than today's levels; and
- Rare earth elements may see three to seven times higher demand in 2040 than today.⁶

²³⁰ final}, May 18, 2022. <u>https://eur-lex.europa.eu/resource.html?uri=cellar:fc930f14-d7ae-11ec-a95f-01aa75ed71a1.0001.02/DOC 1&format=PDF.</u>

² Department for Business, Energy and Industrial Strategy, "Resilience for the future: The UK's critical minerals strategy, 22 July 2022. <u>https://www.gov.uk/government/publications/uk-critical-mineral-strategy/resilience-for-the-future-the-uks-critical-minerals-strategy</u>

³ Natural Resources Canada News Release, "Countries Commit to the Sustainable Development and Sourcing of Critical Minerals," Dec. 12, 2022. <u>https://www.canada.ca/en/natural-resources-canada/news/2022/12/countries-commit-to-the-sustainable-development-and-sourcing-of-critical-minerals.html</u>

⁴ CRS," China's Mineral Industry and U.S. Access to Strategic and Critical Minerals: Issues for Congress," R43864, March 20, 2015, p. 2. <u>https://crsreports.congress.gov/product/pdf/R/R43864/6</u>

⁵ International Energy Agency, "The Role of Critical World Energy Outlook Special Report Minerals in Clean Energy Transitions," May 2021.

⁶ Id at pp.8-10



Minerals used in selected clean energy technologies Copper Transport (kg/vehicle) Lithium Electric car Nickel Conventional car Manganese 50 100 150 200 250 Cobalt Power generation (kg/MW) Graphite Offshore wind Chromium Onshore wind Molybdenum Solar PV Zinc Nuclear Rare earths Coal Silicon Natural gas Others 4 000 8 000 12 000 16 000 20 000 IEA. All rights reserved

The rapid deployment of clean energy technologies as part of energy transitions implies a significant increase in demand for minerals

Notes: kg = kilogramme; MW = megawatt. Steel and aluminium not included. See Chapter 1 and Annex for details on the assumptions and methodologies.

Other major reports have echoed the findings of the IEA. Wood Mackenzie, the World Bank,⁷ the Wilson Center⁸ and others outline staggering demand increases. According to Wood Mackenzie:

- Demand for copper and aluminum is anticipated to increase by a third by 2040.
- Nickel demand will grow by two-thirds, and cobalt and lithium by 200 percent and 600 percent, respectively.⁹

Matching the speed and scale of this rising demand requires a permitting regime that enables the mining sector to respond to market signals; current U.S. permitting timelines do not.

As the IEA concluded in a July 2022 battery supply chain report:

"Governments must leverage private investment in sustainable mining *and ensure clear and rapid permitting procedures* to avoid potential supply bottlenecks."¹⁰ (Emphasis added.)

⁷ World Bank Group, "Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition," 2020. <u>https://pubdocs.worldbank.org/en/961711588875536384/Minerals-for-Climate-Action-The-Mineral-Intensity-of-the-Clean-Energy-Transition.pdf</u>

⁸ D. Wood, A. Helfgott, M. D'Amico, and E. Romanin, Woodrow Wilson International Center for Scholars, "The Mosaic Approach: a Multidimensional Strategy for Strengthening America's Critical Minerals Supply Chain," Oct. 12, 2021,

https://www.wilsoncenter.org/sites/default/files/media/uploads/documents/critical_minerals_supply_report.pdf. ⁹ Gavin Montgomery, Wood Mackenzie, "COP26: Why battery raw materials are a highly-charged topic:-

Aggressive EV uptake is needed to meet a 2° C target, but metals supply will struggle to meet demand." 13 October 2021, <u>https://www.woodmac.com/news/opinion/cop26-why-battery-raw-materials-are-a-highly-charged-topic/</u>

¹⁰ IEA, "Global Supply Chains of EV Batteries," July 2022. <u>https://www.iea.org/reports/global-supply-chains-of-ev-batteries</u>.

Examples of Impacts Down the Supply Chain

End users of minerals are now more acutely aware of the challenge of securing mineral supply chains, a development perhaps most pronounced by the automotive sector as it transitions to an electric vehicles (EVs) future. Over the last few years, many of the major U.S. car makers have made ambitious announcements about their EV plans. General Motors has announced it will invest \$35 billion in electric and autonomous vehicle product development until 2025 and that it will phase out petrol and diesel cars by 2035. Volkswagen wants half of its vehicle sales to be electric by 2030 and nearly 100 percent electric sales by 2040. Audi will launch fully electric models only from 2026 and aims for all car sales to be electric by 2030.¹¹

EVs, however, are far more mineral intensive than traditional combustion engine vehicles. Automakers have been seeking solutions to meet the supply challenge, including inking deals directly with NMA member mining companies. For example, Tesla addressed its concern about obtaining the nickel for its EVs by entering into an agreement with Talon Metals to buy quantities of nickel directly from a mine the company is building in Minnesota. Ioneer has signed an agreement with the Ford Motor Company to supply lithium from its Rhyolite Ridge lithium-boron project in Nevada.¹² General Motors announced it was investing \$650 million in Lithium Americas to secure access to production from its Nevada operations, which it estimates will contribute to one million EVs annually.¹³ For this deal, GM was one of more than 50 automakers and companies competing for a secure supply of minerals from Lithium Americas.¹⁴

At the same time, automakers are calling for acceleration of domestic mining. The Alliance for Automotive Innovation (Alliance) wrote President Biden two years ago expressing concerns that "neither the current trajectory of consumer adoption of EVs, nor existing levels of federal support for supply- and demand-side policies, is sufficient to meet our goal of a net-zero carbon transportation future."¹⁵ One of the specific policy recommendations offered by the Alliance is to promote national security and economic security enhancements through the development of U.S.-based supplies of critical minerals (extraction, processing and recycling), battery and fuel cell manufacturing, and other critical components, including semiconductors.¹⁶ In 2021, Jim Farley, President and CEO of Ford Motor Co. said:

 ¹¹ van Halm, I. and Mullan, C., Feb. 14, 2022, "Booming EV sales challenge critical mineral supply chains," *Energy Monitor* <u>https://www.energymonitor.ai/sectors/transport/booming-ev-sales-challenge-mineral-supply-chains</u>
¹² <u>PR Newswire</u>," Ioneer Signs Binding Lithium Offtake Agreement with Ford," July 21, 2022

¹³ Lithium Americas General Motors Transaction Announcement, January 31, 2023, <u>https://www.lithiumamericas.com/news/lithium-americas-provides-general-motors-transaction-details-and-update-on-construction-plan-for-thacker-pass</u>. Cecilia Jamasmie, January 31, 2023, "GM invests \$650m in

Lithium Americas to develop Thacker Pass mine" www.mining.com, https://www.mining.com/gm-lithium-americas-to-jointly-develop-thacker-pass-mine-in-nevada/

¹⁴ The Electric, "The New 'Elephants'—GM Grabs the Biggest Lithium Deposit in the U.S., Feb. 2, 2023. https://subscriptions.theinformation.com/newsletters/the-electric/archive/the-electric-the-new-elephants-gm-grabs-the-biggest-lithium-deposit-in-the-u-s

¹⁵ Alliance for Automotive Innovation letter to President Biden, March 29, 2021. <u>https://www.autosinnovate.org/posts/communications/Auto%20Industry%20EV%20Policy%20Letter%20to%20President%20Biden%20March%2029%202021.pdf</u>

¹⁶ Id. at 4.

We have to bring battery production here, but the supply chain has to go all the way to the mines. . . So are we going to import lithium and pull cobalt from nation-states that have child labor and all sorts of corruption or all we going to get serious about mining?" . . . We have to solve these things, and we don't have much time."¹⁷

Demand Cannot Be Met Without New Mining

Automakers are simply one stakeholder group that acknowledge the role of domestic mining in securing our supply chains. In May 2021, the White House rebutted reporting from *Reuters* claiming that President Biden will primarily rely on ally countries to supply the bulk of the metals needed to build EVs. In its clarification, the White House noted that the reporting incorrectly characterizes the Biden-Harris administration's approach:

President Biden is focused on seizing the electric vehicle (EV) market, sourcing and manufacturing the supply chain here in America, and creating good-paying, union jobs. Building American-made EVs and shipping them around the world will include leveraging American-made parts and resources. This includes responsibly pursuing, developing, and mining critical minerals and materials used for EV batteries. As we strengthen our supply chains, we will pursue strong environmental standards and broad, rigorous consultations with local and indigenous communities to support a responsible, fair, and sustainable EV industry.¹⁸

The Department of Energy recently echoed the importance of domestic sourcing, calling the development of a U.S. supply chain for these materials "a national priority as the country works toward energy independence."¹⁹ Working with our allies to build these supply chains is smart but that must complement the essential work of standing up the mineral production required for these supply chains at home; it cannot come in place of it. The State Department's Mineral Security Partnership reportedly funding 16 solely international mining projects while we continue to debate needed permitting improvements domestic production is not a balanced mineral production policy.

Recent withdrawal decisions locking up more than 225,000 acres in federal Forest Service lands in Minnesota from mining for two decades after also withdrawing long held federal leases from projects in the same areas known for some of the nation's largest reserves of nickel, cobalt, copper, platinum, and palladium could

¹⁷ Jim Farley remarks, Detroit Homecoming VIII, Live-streamed interview with Mary Kramer (director of the annual event). Sept. 25, 2021. <u>https://detroithomecoming.com/livestream-events/</u>

¹⁸Statement from Ali Zaidi, Deputy National Climate Advisor, Reuters, Epoch Times etc.: <u>https://www.theepochtimes.com/white-house-denies-report-that-biden-looks-overseas-for-electric-vehicle-metals_3832373.html?welcomeuser=1</u>

¹⁹ U.S. Dept. of Energy Press Release available at <u>https://www.energy.gov/lpo/articles/lpo-announces-conditional-commitment-ioneer-rhyolite-ridge-advance-domestic-production</u>, January 13, 2023.

only be described at best as short sighted and at worst self-sabotage.²⁰ This action and the potential congressional action disapproving of the administration's action is the focus of a congressional legislative hearing today as well.²¹

Current Permitting Process Discourages Investment in U.S. Mining

With over \$6 trillion worth of mineral resources here in the United States, a highly trained and highly compensated workforce, and world-class environmental, labor, and safety standards, the U.S. mining industry is essential to helping the nation meet ever-increasing demand for minerals for infrastructure and manufacturing needs.

Permitting delays have been, and continue to be, one of the most significant risks to meeting domestic mineral production goals. As the permitting process for important projects across the U.S. drags on, geopolitical rivals are taking advantage of our bureaucratic inertia. Opening or expanding a mine in the U.S. typically involves multiple agencies and the navigation of tens or even hundreds of permitting processes at the local, state and federal levels, with little transparency into status, delays arising from duplication among federal and state agencies, an absence of firm timelines for completing environmental assessments, and failures in coordination of responsibilities between various agencies. Necessary government authorizations now take an average of seven to 10 years to secure – one of the longest permitting processes in the world for mining projects – a time period that is completely out of step with the dramatic increases in minerals production that will be needed in the coming decades to keep up new technologies, infrastructure, manufacturing and even with the administration's own energy and supply chain goals.

There is real room for improvement. To improve supply chain security, we must also have a robust domestic mineral supply chain. That includes more smelting, processing and refining capabilities in the U.S. necessary to claw back these essential processes from geopolitical adversaries like China, which controls more than 80 percent of global rare earth element production, nearly 90 percent of global mineral processing capabilities as well as the market prices for rare earth elements at each step of the process.

In the U.S., necessary government authorizations place the U.S. at a competitive disadvantage in attracting investment for mineral development. By comparison, permitting in Australia and Canada, which have similar environmental standards and practices as the U.S., take between two and three years. The NMA believes that valid concerns about environmental protection should be fully considered and addressed but permitting processes should not serve as an excuse to trap mining projects in a limbo of duplicative, unpredictable, endless and costly review without

²⁰ Wall Street Journal, "Biden's Green-Energy Mineral Lockup. The feds block mining that is essential for making EV batteries" January 29, 2023, <u>https://www.wsj.com/articles/biden-administration-mining-duluth-complex-minnesota-superior-national-forest-deb-haaland-electric-vehicles-11674860178</u>.

²¹ U.S House Natural Resources Committee, Energy and Mineral Resources Subcommittee, <u>Legislative Hearing</u> on H. Con. Res. 34 and H.R. ___, "Superior National Forest Restoration Act," May 11, 2023.

a decision point. Moreover, there is little evidence that such delays yield commensurate environmental benefits. The length of the permit process should not be confused with the rigor of review. Ironically, it takes about two years to build a new battery gigafactory, but it takes at least eight years (sometimes more than 10) to permit and build a new lithium mine.²²



Nearly two decades ago, the U.S. attracted almost 20 percent of the world's total mining investment. Unfortunately, in the time since, there has been a sharp decline in U.S. exploration investment. This is not due to lack of resources, but rather a lack of confidence in the U.S. as a viable mining jurisdiction in which to invest hundreds of millions of dollars in upfront costs due to duplicative, inefficient and costly permitting timeframes, making the U.S. more dependent on other countries for minerals. In its most recent report of global investment in mining exploration and production, S&P Global consistently ranks Canada and Australia as by far the most favored regions for mining investment.²³

²² Comments of Dr. Qichao Hu, founder and CEO of Massachusetts-based battery maker SES, in an interview with Charged, <u>https://chargedevs.com/features/the-raw-materials-crunch-how-bad-how-long-how-to-solve-it/#:~:text=Qichao%20Hu%2C%20founder%20and%20CEO,build%20a%20new%20lithium%20mine.%E2%80%9D</u>, Spring 2022.

²³ S&P Global Market Intelligence, <u>World Exploration Trends</u>, April 2022, p. 13.





Although mining investment in some parts of the U.S. remains high, the Fraser Institute releases annual investment surveys among mining companies regarding the areas of the world in which those companies look to invest, in part based on the certainty of the regulatory environment. The following is an excerpt from last year's report:

The United States' median investment attractiveness score declined ... The median policy perception index (PPI) score for the United States, however, declined significantly—by almost 13 points—and is no longer the top-ranked region *based on policy alone*. This year, all US states saw a deterioration in their PPI scores. Minnesota (-19.9 points), Idaho (-16.4 points), and New Mexico (-15.0 points) saw the largest PPI score declines.²⁴ (Emphasis added.)

The latest survey, released only last week, reports the same status with only modest improvements:

The United States' median investment attractiveness score increased this year by 0.9 points. 25

Current Permitting Process Encourages Foreign Dependence

The U.S. is increasingly vulnerable to supply chain disruptions and retaliation from geopolitical adversaries due to our ever-increasing reliance on imports for

²⁴ Fraser Institute, Annual Survey of Mining Companies 2021, April 12, 2022 <u>https://www.fraserinstitute.org/sites/default/files/annual-survey-of-mining-companies-2021.pdf</u>, pp. 29-31.

²⁵ Fraser Institute, Annual Survey of Mining Companies 2022, May 4, 2023 <u>https://www.fraserinstitute.org/sites/default/files/annual-survey-of-mining-companies-2022.pdf</u>, pp. 28-31.

these essential resources. Less than half of the mineral needs of U.S. manufacturing are met by domestically produced minerals, which leaves our economy and national security at a strategic disadvantage. The U.S. Geological Survey's (USGS) annual commodity summary released in January makes some key findings:

- Last year, imports made up more than one-half of the U.S. apparent consumption for 51 nonfuel mineral commodities, and the United States was 100 percent net import reliant for 15 of those.
- Of the 50 mineral commodities identified in the "2022 Final List of Critical Minerals," the United States was 100 percent net import reliant for 12, and an additional 31 critical mineral commodities (including 14 lanthanides, which are listed under rare earths) had a net import reliance greater than 50 percent of apparent consumption.
- Underscoring the vulnerability of U.S. mineral supply chains, China was the leading source of mineral commodities with a greater than 50 percent import reliance providing 26, with significant imports of other essential commodities also coming from Russia.
- The estimated value of U.S. metal mine production in 2022 was \$34.7 billion, six percent lower than the revised value in 2021. In 2022, the capacity utilization for the metals mining industry was 61 percent, less than the 63 percent capacity utilization in 2021.²⁶



U.S. Mineral Import Reliance

Currently, China is the leading producer and/or supplier of 66 percent of mineral commodities listed as essential to U.S. economic and national security including

²⁶ U.S. Geological Survey, January 2023 Commodity Summary, <u>https://pubs.er.usgs.gov/publication/mcs2023</u>

lithium, rare earths and other battery metals.²⁷ According to USGS, production concentration has increased markedly over the past few decades for many mineral commodities with the most notable global shift being the increasing production of mineral commodities in China.²⁸ China's share of global mineral production and processing has grown markedly since 1990 for many mineral commodities, including aluminum, bismuth, refined cobalt, gallium, lead, magnesite, magnesium metal, mercury, REEs, silicon, steel (raw), titanium, vanadium and zinc. According to the USGS criticality methodology, "of the 54 mineral commodities evaluated, China was the leading producer of at least one stage of the supply chain for 35 commodities."²⁹

It was not always this way, and it does not have to be our future. As explained in an opinion piece published in *The Hill*:

In the 1980s, the U.S. was the mineral capital of the world. Since then, China has developed a juggernaut battery supply chain industry. The industry is centered around chemical processing of battery materials, backed by substantial government funding and coordination. These subsidies led to a wave of outsourcing by American companies across industries from semiconductors to steel. In addition, China has spent the last two decades investing in the mining industry abroad, including major investments and mineral rights in Australia, Africa, Asia and South America. This has led to an overreliance on China — and in turn vulnerable supply chains and a lost economic opportunity at home.³⁰

The following data from the mining engineering program at the University of Missouri of Science and Technology provides an important snapshot of the history of domestic supply chain issues impacting the mining and processing from 1995 to last year of two widely used industrial metals:

²⁷ Notably this reliance comes despite existing U.S. resources. In the 2022 Mineral Commodity Summaries, the USGS indicated the U.S. had an estimated 48 million metric tons (mt) of copper that can be mined and processed economically, 69 million mt of cobalt, 340 million mt of nickel and 750 million mt of lithium. Regardless, in 2021, the U.S. imported 48 percent of U.S. consumption of nickel, 76 percent of cobalt, 45percent of copper, and more than 25 percent of lithium.

²⁸ Nassar, N.T., Alonso, E., and Brainard, J.L., 2020, Investigation of U.S. Foreign Reliance on Critical Minerals—U.S. Geological Survey Technical Input Document in Response to Executive Order No. 13953 Signed September 30, 2020 (Ver. 1.1, December 7, 2020): U.S. Geological Survey Open-File Report 2020–1127, p. 4. <u>https://pubs.usgs.gov/of/2020/1127/ofr20201127.pdf</u>

²⁹ USGS 2023 Methodology, <u>https://pubs.usgs.gov/periodicals/mcs2023/mcs2023.pdf</u>. p. 7.

³⁰ Ellen Hughes-Cromwick, Ph D. 2022. "How the U.S. Can Secure a Resilient Electric Vehicle Battery Supply Chain." The Hill. June 8, 2022. <u>https://thehill.com/opinion/energy-environment/3516265-how-the-us-can-secure-a-resilient-electric-vehicle-battery-supply-chain/</u>.



Changes in Steel Supply



Source: Testimony of Dr. M Moats, University of Missouri of Science and Technology, Feb. 2023³¹

Federal Coal Leasing Program

The Federal Coal Leasing Program has been a national energy and economic success story. Over the last decade, the program produced approximately 3.3 billion tons of coal and resulted in \$7.7 billion in revenue collections by the federal

³¹ U.S. House Committee on Natural Resources Subcommittee on Oversight and Investigations, "Dependence on Foreign Adversaries: America's Critical Minerals Crisis," Testimony Dr. M. Moats, Professor and Department Chair of Materials Science and Engineering, Missouri University of Science and Technology, https://naturalresources.house.gov/uploadedfiles/testimony_moats.pdf, February, 9, 2023. government. It has provided hundreds of millions of dollars of state and local revenue per year, while also providing a low cost, reliable source of energy for all Americans and material for steel manufacturing. In 2022 alone, the royalties, bonus payments, and rent payments from coal produced on federal land amount to over \$576 million. Consequently, delays in awarding leases under the program or a moratorium on new production deprives economic development, job creation and retention, federal revenues, and threatens electricity reliability and U.S. competitiveness in building critical infrastructure.



Total coal production through the Federal Coal Leasing Program remains significant. The Department of Interior's Office of Natural Resources Revenue and the Department of Energy's Energy Information Administration reported that of 594.6 million short tons of total coal production in the United States in 2022, 270.2 million short tons was produced on federal lands amounting to 45 percent of total production of both thermal and metallurgical coal.³²

The following data from key coal producing states including federal coal producing states under the Federal Coal Leasing Program, demonstrates coal producers' significant contributions in total tax and royalty liability to federal, state, or local governments from each ton of coal production³³:

³² See, U.S. Department of Interior Natural Resources Revenue Data at <u>https://revenuedata.doi.gov/query-data/?dataType=Production</u>, and U.S. Department of Energy Monthly Energy Review, <u>https://www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf</u>, April 2023, p. 119.

³³ Energy Information Administration, Annual Coal Report, <u>https://www.eia.gov/coal/annual/</u>, October 2022, taken from Table 28.

West Virginia



Wyoming



Utah



New Mexico



Montana



North Dakota



Colorado



Thermal coal production on federal land has been caught in a policy back and forth depending on the occupant of the White House. In 2016, former U.S. Department of the Interior (DOI), Secretary Sally Jewell issued Secretarial Order 3388 imposing a three-year moratorium on further coal lease sales, with exceptions for metallurgical coal production and certain exceptions for thermal coal production, pending completion of a programmatic environmental impact statement (PEIS). After a change in presidential administrations, former DOI Secretary Ryan Zinke issued Secretarial Order 3348, that revoked the Order 3388, terminated the ongoing PEIS, and directed Bureau of Land Management (BLM) to resume issuing coal leases. Litigation immediately challenged Order 3348, and after another change in presidential administrations, DOI Secretary Deb Haaland issued Secretarial Order 3398 to revoke Order 3348 and update the policies of the Department concerning the Federal Coal Leasing Program.

In August 2022, the U.S. District Court for the District of Montana took the extraordinary step of issuing an order reinstating the moratorium established by former Secretary Sally Jewell in Order 3388.³⁴ The order imposes an indefinite nationwide injunction against federal thermal coal leasing with some exceptions until the BLM completes an analysis under the National Environmental Policy Act of the 2017 revocation of the moratorium.

³⁴ See, U.S. District Court of Montana Order in 4:17-cv-00030-BMM, August 12, 2022

On May 1, 2023, the DOI announced a notice of intent to receive public comment on the issues that should be included in the scope of BLM's PEIS to analyze the potential environmental effects from maintaining or revoking the Jewell moratorium.³⁵ Clarification to simply withdraw the original Order 3388 and allow the Department of the Interior to perform its lawful functions to implement the Federal Coal Leasing Program is critically important.

Protecting Electric Grid Security

As Chairman Manchin stated at an Energy and Natural Resources Committee hearing only last week, "whether it's EPA's effluent limitations guidelines, the mercury air toxic standard, the interstate ozone transport rule, power plant CO_2 regulations, or others – the potential reliability impacts of these combined regulations are staggering."³⁶

Currently, the policies driving a transition of the electricity grid are not balanced with an acknowledgement of what is needed to ensure reliable and affordable electricity especially in challenging weather events. This is an issue which grid operators have been warning of for years. At the same Energy and Natural Resources Committee hearing last week that included all four U.S. Federal Energy Regulatory Commissioners, Chairman Willie Phillips, answered a question from Senator Hoeven about the need for dispatchable energy generation, "I am extremely concerned about the pace of retirements we are seeing of generators which are needed for reliability on our system. NERC and the grid operators have warned us about this."

Americans and American businesses will continue to pay increasingly more for electricity that is less and less reliable. Even worse, current federal regulations are unilaterally making these decisions for the states – 20 states use coal for approximately a quarter of their electricity generation, and half of those states use coal for half or much more of their electricity generation.

In fact, in 2022, as many as 40 planned coal plant retirements were postponed or scrapped largely due to acute grid reliability challenges where utilities and grid operators have made it clear closing plants would be reckless.³⁷ The U.S. coal fleet continues to play an outsized role in providing dispatchable fuel diversity, fuel security and ramping up power supply during periods of surging demand when other sources of power cannot.

In February 2023, PJM Interconnection, the grid operator for the nation's largest electricity market, projected it will lose 40 GW of generating capacity by 2030 – 21% of the market's existing capacity – with only 31 GW of additions in the same

³⁵ Notice of Intent To Prepare an Environmental Impact Statement To Analyze the Potential Environmental Effects From Maintaining Secretary Jewell's Coal Leasing Moratorium, 88 Fed. Reg. 26588, May 1, 2023

³⁶ U.S. Senate Committee on Energy and Natural Resources, <u>Full Committee Hearing to Conduct Oversight of</u> <u>FERC</u>, May 4, 2023.

³⁷ Will Wade, "<u>Dozens of US Coal Plant Closures Delayed as Green Energy Shift Slows</u>," Bloomberg, Nov. 1, 2022

period. Of the 40 GW of projected losses, PJM expects 25 GW in retirements due to "policy driven" decisions meaning EPA regulations and state mandates. PJM reported, "For the first time in recent history, PJM could face decreasing reserve margins should these trends continue. The amount of generation retirements appears to be more certain than the timely arrival of replacement generation resources and demand response, given that the quantity of retirements is codified in various policy objectives."³⁸

What Are Grid Operators and Regulators Saying?

- John Moura, North American Electric Reliability Corporation (NERC), director of reliability assessment and performance analysis, 2022: "Just to say it for the fourth or fifth time: Managing the pace of our generation retirements and our resource changes to ensure we have enough energy and essential services is an absolute necessity."³⁹
- National Rural Electric Cooperative Association CEO Jim Matheson, 2023: "I mean, does anyone at the EPA think about reliability when they're talking about making new rules? We all know the answer to that."40
- NERC CEO Jim Robb, 2022: "We need to retain the existing resources as long as we don't have an alternative. That's the issue...My first bit of advice is to... manage the pace of change. The second bit of advice we give is don't underinvest in bridge fuel or the bridge issues to get us from where we are to where we want to go."⁴¹
- FERC Commissioner Mark Christie, 2023: "The United States is heading for a reliability crisis. I do not use the term 'crisis' for melodrama, but because it is an accurate description of what we are facing. In summary, the core problem is this: Dispatchable generating resources are retiring far too quickly and in quantities that threaten our ability to keep the lights on. The problem generally is not the addition of intermittent resources, primarily wind and solar, but the far too rapid subtraction of dispatchable resources, especially coal and gas."⁴²
- FERC Commissioner James Danly, 2023: "We know that there is a looming resource adequacy crisis. Our market operators have been explicitly telling us as much for years. Both MISO and ISO-NE have warned about upcoming scarcity and PJM, the nation's largest wholesale market, and the one that

³⁸ PLM Interconnected, "<u>Energy Transition in PJM: Resource Retirements, Replacements & Risks</u>," Feb. 24, 2023, p.3.

³⁹ Robert Walton, "<u>Most of US electric grid faces risk of resource shortfall through 2027, NERC finds</u>," Dec. 16, 2022

⁴⁰ Jim Matheson remarks, United States Energy Association, Jan. 27, 2023.

⁴¹ "<u>Grid Transformation: NERC's CEO Concerned</u>," Fortnightly Magazine, September 2022.

⁴² U.S. Senate Energy and Natural Resources Committee, U.S. Senate Committee on Energy and Natural Resources, Full Committee Hearing to Conduct Oversight of FERC, May 4, 2023.

serves Washington, D.C., has recently raised the alarm about impending shortfalls. $^{\rm 43}$

In response to a question from Chairman Manchin at the end of the FERC oversight hearing last week asking, "Can the grid eliminate coal and maintain a reliable system" all commissioners replied similarly:

- Chairman Phillips answered, "It would not."
- Commissioner Danly answered, "No. Coal is required...and it would be impossible to replace it."
- Commissioner Clements answered, "Right now, today, no."
- Commissioner Christie answered, "We need to keep coal generation available for the foreseeable future."44

Empowering the grid reliability experts from the Federal Energy Regulatory Commission and the North American Electric Reliability Corporation (NERC) to the regional independent system operators like the Midcontinent System Operator (MISO) and PJM to have a new critical statutory authority to pause and postpone regulatory actions throughout the federal government that threaten electricity reliability is a key and needed check and balance at this important time for the health of our grid.

What Are The Solutions?

This Congress has a unique opportunity to enact meaningful permitting and energy legislation.

The American Energy Security Act, the Spur Permitting of Underdeveloped Resources (SPUR) Act, and the Revitalizing the Economy by Simplifying Timelines and Assuring Regulatory Transparency (RESTART) Act set lead agencies to coordinate the permitting process; improve the timeliness of the permitting process through enforceable environmental review and judicial deadlines; maintain access to mineralized federal lands unless specifically withdrawn by Congress; maintain decades of essential mining regulatory practice to not only ensure U.S. competitiveness but to prevent impediments to domestic production; provides more certainty to timing of legal reviews; support a domestic uranium industry for critical nuclear energy production; provide new needed regulatory certainty to the Federal Coal Leasing Program allowing new leasing and lease renewals; and protect the security of our electric grid relying on the Federal and unlocks innovation by not supporting prescriptive policies.

These policy recommendations are commonsense changes that would provide regulatory certainty to investors that the U.S. seeks to attract on a global scale in the mineral supply chain. Instead of only pursuing mineral supplies from foreign sources or exporting domestically extracted materials for further refinement, processing and smelting, the NMA supports improvements in the permitting process that would secure the entirety of the U.S. supply chain, lessen

⁴³ *Id*.

⁴⁴ Id.

vulnerabilities from outside sources, including geopolitical impacts. The NMA supports needed clarity for U.S. thermal coal markets and regulatory balance to support critical electricity reliability.

Conclusion

The U.S. is at a mining crossroads. Mineral demand is soaring, but our policies are both lagging and impeding production. We must encourage more domestic mining and processing to meet future demand and ensure that the materials required for everything from infrastructure to electrification are readily available from inside our own borders.