Unearthing Mineral Solutions

A Comprehensive Critical Minerals Agenda for Manufacturers in America

June 2026

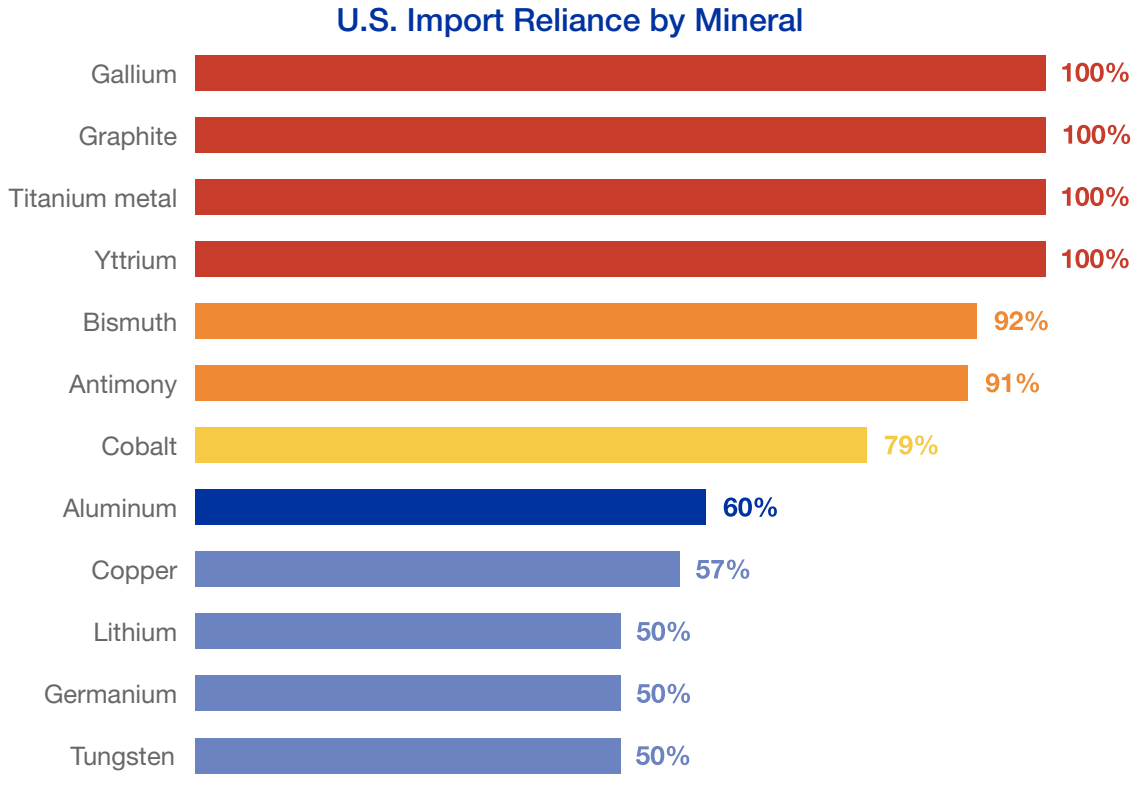
NATIONAL ASSOCIATION OF Manufacturers

U.S. Manufacturing Strength Depends on Critical Minerals

Access to raw and processed critical minerals is fundamental to support a thriving commercial manufacturing base in the U.S. and to strengthen the U.S. defense industrial manufacturing base. Manufacturers use critical minerals and their derivatives to make in America the most technologically advanced industrial and consumer products in the world, including aircraft and defense systems, automotive parts and vehicles, electric grid components, robotics and industrial automation, personal electronics and much more.

Though the U.S. is a significant global producer of rare earth elements, insufficient domestic processing infrastructure means the U.S. exports 93% of its unrefined rare earths for processing overseas.

Safeguarding stable and diversified supply chains of critical minerals is vital for U.S. national, economic and energy security. While endowed with many natural resources, the U.S. has a finite domestic supply of critical minerals and is a global leader in mining for just eight mineral commodities. The U.S. also has limited midstream processing capabilities, an essential step that transforms minerals for specific end uses.



U.S. Geological Survey, "Mineral Commodity Summaries 2026," March 2026. Figure 2 - 2025 U.S. net import reliance

As a result, manufacturers in the U.S. rely heavily on imports of many critical minerals. **The U.S. is 100% import reliant for 13 critical mineral commodities included on the 2025 U.S. Geological Survey List of Critical Minerals—and more than 50% import reliant for an additional 20.** China, meanwhile, is a global powerhouse in mineral production and processing, the result of decades of industrial strategy. China's increasing weaponization of critical mineral supply chains, including export restrictions on over a dozen critical minerals and rare earth elements in 2025, underscores the acute vulnerabilities in U.S. critical mineral supply chains.

Recognizing this imperative, the Trump administration has quickly ramped up efforts to produce and process more minerals domestically and has boosted critical mineral diplomacy with international partners. With over 20 critical mineral frameworks and action plans announced since August 2025, new international coalitions like Pax Silica and the Forum on Resource Geostrategic Engagement complement Project Vault to establish a stockpile. The NAM strongly supports the administration's efforts to expand America's domestic mineral capacity while simultaneously reshaping and rebalancing global critical mineral supply chains.

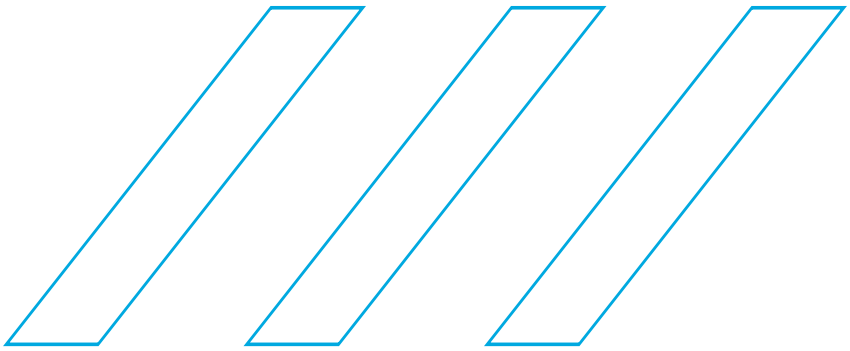
To strengthen and stabilize reliable critical mineral supply chains for manufacturers in the U.S., the NAM recommends the administration take additional comprehensive and complementary policy actions both domestically and with international partners.

- **Domestically,** policymakers should enact comprehensive permitting reform, restore permanency to and strengthen strategic financial incentives, invest in advanced technologies and processing capabilities, and bolster workforce development programs.

- **Internationally,** the U.S. should generate new pipelines for mineral projects in partner countries, diversify global sources of critical inputs and dismantle predatory marketplace distortions.

This two-pronged approach—designed to address the needs of the manufacturing sector across the full critical mineral life cycle—will enhance capacity at home, leverage resources abroad and safeguard access to a diverse range of critical minerals necessary for U.S. economic strength and national security.

National and economic security are at stake—manufacturers need critical minerals to power the energy grid, equip our servicemembers with the tools to protect and defend the homeland and drive 21st century American innovation.



Determining Minerals of Focus

There are thousands of distinct minerals on Earth. The U.S. Geological Survey recognizes 60 of these minerals and elements as vital to U.S. national and economic security. Manufacturers need secure and reliable access to each of these critical minerals—requiring a diversity of policy solutions to guarantee access to a wide range of crucial manufacturing inputs.

These minerals each face unique challenges that threaten manufacturing supply chain resilience, with distinct market dynamics, resource endowments, supply networks and global vulnerabilities.

Recognizing the challenge of addressing systemic vulnerabilities across dozens of minerals in a single effort, the administration should pilot efforts targeted at specific minerals to demonstrate proof of concept for distinct, tailored solutions. **The NAM recommends an approach aligned with the illustrative examples outlined below, which would enable the administration to evaluate critical minerals and determine policy opportunities and vulnerabilities for action.**

Criteria	Examples
Existing U.S. deposits: Optimize access to and processing of resources that have been identified or are available in the U.S.	Aluminum, antimony, cobalt, copper, gallium, graphite, lithium, nickel, niobium, titanium, potash, uranium, zinc, zirconium
Import dependence: Develop alternative supply for minerals in which the U.S. is heavily reliant on imports	Arsenic, cesium, fluorspar, gallium, graphite, indium, rubidium, scandium, tantalum, yttrium
Global market concentration: Mitigate risks when a significant share of a mineral's global production is controlled by a single country	Bismuth, fluorspar, gallium, graphite, indium, magnesium, rare earths, silicon, tellurium, titanium (metal), tungsten, vanadium
Global market structure: Prioritize action on minerals produced in small volumes with less established price discovery and financial markets	Gallium, rare earths
National security concerns: Ensure supply for manufacturing components essential to U.S. defense systems	High-grade titanium, ultra-pure aluminum, tungsten
Targets of economic coercion: Mitigate the impact of weaponized geopolitical supply chain disruptions	Bismuth, indium, tellurium, tungsten, many rare earths
Strategic commercial significance: Focus on supply chains of minerals with outsized importance to U.S. energy, technology, defense and health sectors	Energy: Lithium, cobalt, graphite, copper Telecommunications: Germanium Semiconductors: Gallium, tungsten Defense: Aluminum, antimony, titanium and alloys, rare earths Health: Bismuth, barite, lithium, rare earths
Low substitutability: Prioritize minerals with limited substitutes to avoid supply chain bottlenecks and geopolitical vulnerability	Antimony, barite, chromium, copper, gallium, manganese, phosphate, potash, scandium, tantalum, tungsten, vanadium, rare earths

Domestic Policy Solutions

With China's efforts to restrict exports of critical minerals and rare earth elements that can be used for defense and warfighting purposes, U.S. national security depends on accessing these resources here at home and developing our domestic mining and refining capabilities.

American energy dominance and competitiveness in innovative technologies also require a secure critical mineral supply chain.

For manufacturers to be able to drive domestic economic growth and help maintain a strong national defense, policymakers must deploy legislative, regulatory and administrative solutions that enhance access to critical inputs at home.

Enacting Comprehensive Permitting Reform to Sustain Project Certainty

Reform the National Environmental Policy Act: Manufacturers need certainty when making investment decisions and planning projects. But bad actors have abused the NEPA process—leading to project delays and years of uncertainty. Policymakers should enact commonsense NEPA reforms that will ensure a speedy process that results in definitive decisions for all projects.

Expedite judicial review: The judicial review process under NEPA has long been abused, with lengthy and frivolous litigation too often holding up projects. Manufacturers need a workable statute of limitations, guardrails that limit legal action to affected stakeholders that offer substantive public input, and clearer limits on when courts can invalidate an agency action.

Codify Supreme Court NEPA precedent: Project opponents often use speculative or non-proximate project effects to challenge permits. The Supreme Court issued a unanimous decision that limits the scope of NEPA in *Seven County Infrastructure Coalition v. Eagle County*. Congress must codify this precedent to ensure that environmental reviews only focus on the impacts of a project to its immediate environmental and community surroundings.

Benefits of Mineral Co-Location

One of the roadblocks to ensuring domestic access to critical minerals has been the burdensome permitting process for major base metals projects that have various critical minerals and rare earths co-located in the deposit. Without significant public-sector support, it is very often not economical for companies to extract only deposits of rare earths or certain critical minerals due to price volatility and/or their small size. Recognizing the benefits of approaching the approval and financing of major projects—such as for copper, bauxite, gold or silver—with an eye toward quantifying and unlocking the benefits of other materials that are in a given deposit will help:

- Increase cost efficiency
- Provide additional revenue streams
- Reduce impacts to the environment
- Strengthen domestic supply chains

Update what triggers a major federal action under NEPA: The federal government supports critical manufacturing and energy projects across the country with various incentives. However, this very support frequently triggers a lengthy review and litigation process, defeating the purpose of the government incentives. Projects that receive federal funding should not automatically trigger NEPA solely because they receive federal financial support.

Increase the use of categorical exclusions: While Congress works to reform NEPA, the executive branch should use its authority under Section 109 of NEPA, as added by the Fiscal Responsibility Act, to issue new categorical exclusions and more efficiently allow for interagency transferability of these exclusions to ensure critical infrastructure projects can advance unimpeded.

Modernize the Clean Air Act: Manufacturers have said that permitting under the Clean Air Act has proven to be the most burdensome. By setting air quality standards that are at or near natural background levels, imposing onerous requirements on new and expanding facilities and failing to account for international emissions, the status quo leaves energy and manufacturing dominance at risk. The administration should ensure workable standards for both PM2.5 and ozone under the CAA's National Ambient Air Quality Standards program. In addition, Congress should modernize the NAAQS program to make it easier to discount international emissions, ensure a workable review process through realistic timelines, bolster stakeholder voices in the review process and allow for creative solutions for emissions-reduction credit trading across states and regions.

Streamline the Clean Water Act: Clean Water Act reviews have led to extended and unnecessary delays given unclear rules, vague divisions of state and federal authority, and extended review periods. Policymakers should clarify timelines for when agencies must act on permitting requests, establish clear, commonsense definitions regarding the scope of permitting and consultation requirements, and increase the usage of general permits.

Create durable certainty in the permitting process for legally permitted projects: Uncertainty around whether the federal government will use the permitting process to block, slow or otherwise target disfavored projects makes it extremely difficult for manufacturers to make long-term investment decisions. Congress can address this uncertainty by limiting the revocation and cancellation of permits, creating enforceable deadlines for authorizations and implementing processes to make project developers whole when delays or losses are deemed unfair.

Restoring Permanency to Strategic Manufacturing Incentives and Facilitating Federal Support

Section 45X: One tool that has the potential to be a game changer for critical mineral development in the United States is the Section 45X Advanced Manufacturing Production Tax Credit. This strategic tax incentive is designed to incentivize the production and sale of eligible energy components and systems, including renewable energy components, inverters, qualifying battery components and applicable critical minerals. The Section 45X credit is key to the United States' competition with China, which has dominated the manufacturing of key components like batteries and critical minerals.

Unfortunately, the Section 45X credit will begin to phase out for critical minerals beginning in 2031, with the full phaseout completed by 2034—limiting much-needed investment in critical mineral projects. Because these initiatives face protracted permitting cycles and multiyear development timelines, the scheduled phaseout threatens their long-term viability before they even reach production.

Therefore, the NAM supports Congress reversing this sunset and looking at ways to strengthen the Section 45X incentive, including by adding additional critical minerals and materials to the eligibility list.

Other R&D tax support: H.R. 1 permanently restored immediate R&D expensing, allowing manufacturers to deduct the costs of R&D investments in the year incurred. This reduces the cost of research conducted in the U.S.—incentivizing and supporting pro-growth activities like R&D into new extraction, processing or recycling techniques. Building on this pro-manufacturing policy win with additional support for critical mineral R&D, including improvements to the R&D tax credit, can further bolster domestic critical mineral supply chains.

Defense Production Act financing: Granting manufacturers access to critical financial tools will help reduce the cost of mining and processing capital projects in the U.S. The NAM welcomes the Trump administration's executive action titled "Immediate Measure to Increase American Mineral Production," which invoked the Defense Production Act to make available new loans, loan guarantees, offtake agreements, grants, investments and other financial instruments to boost domestic mineral production. This is critical to unlocking federal financial resources to help realize American resource dominance and make domestic mining and processing cost competitive.

Office of Energy Dominance Financing: H.R. 1 authorized the Department of Energy's Office of Energy Dominance Financing to create the Energy Dominance Financing Program. In addition to guaranteeing loans for projects that add energy to the grid or enhance reliability, the EDFP can also finance critical mineral projects to secure domestic supply chains. These resources can support the goals of building new energy generation facilities as well as replacing older energy and grid infrastructure with modernized, retooled, repowered and repurposed assets. Manufacturers encourage the executive branch to continue to use the tools at its disposal to provide financial support to domestic critical mineral projects.

Investing in Critical Mineral Mapping, Recycling, Recovery and Substitution Tools and Technologies and Critical Mineral Processing Capabilities

Congress and the administration have made remarkable progress toward implementing programs and funding opportunities to enhance critical mineral investment. Congress should provide funding and programmatic certainty to these programs and track their progress in meeting the domestic needs of the United States' critical mineral supply chains.

DOE funding opportunities: The DOE has established several opportunities for manufacturers to get involved and receive funding to boost recycling, processing and substitution technologies for critical minerals. The Office of Critical Minerals and Energy Innovation is looking to expand U.S. critical minerals and materials processing and derivative battery manufacturing and recycling. It has created a Critical Minerals and Materials Accelerator program to scale up processing technologies that are only proven at the bench scale. It has also provided funding to enhance domestic supply chains for rare earth elements, including support for projects that demonstrate the commercial viability of recovering and refining these elements from feedstocks like mine tailings, e-waste and other waste materials. The Office of Fossil Energy is actively backing the development of future separation and recovery technologies at industrial sites and accelerating "Mine of the Future" technologies toward commercialization.

Successful resource mapping programs: The Infrastructure Investment and Jobs Act established and authorized the Earth Mapping Resources Initiative and required a comprehensive national modern surface and subsurface map and data integration. The USGS has been overseeing the Earth MRI program to ensure the successful mapping of the nation's geology, including the identification of energy, mineral and water resources, hazards, mine waste, abandoned wells and other natural and human-engineered features. The Earth MRI program provides critical tools for meeting the United States' critical mineral priorities and has been supported over multiple administrations.

Strengthening Workforce Development Programs to Close the Skills Gap

Innovation in critical mineral mining and refining requires high-skilled workers at a time when manufacturing is facing more than 400,000 open jobs across the sector. As such, the NAM encourages the U.S. government to partner with industry on workforce training and upskilling solutions to close the skills gap in extraction industries.

Education and training programs: The Mining Schools Act would establish a DOE grant program for mining schools to receive funding to recruit students and carry out studies, research projects or demonstration projects related to the production of minerals. The legislation would help establish a modern mining workforce to help gain access to critical minerals and resources needed for our national security and the U.S. economy.

The American Revitalization Manufacturing Exchange Program Act would authorize a new educational exchange program at the Department of State for the purpose of increasing manufacturing knowledge, training, experience, expertise and workforce in the U.S. This includes industries that process and utilize critical minerals.

Congress should pass these bills and provide manufacturers with the resources they need to identify workforce gaps and train workers to meet the specific needs of the industries that are trying to shore up domestic critical mineral supply chains.

International Policy Solutions

To ensure the continuity and long-term resilience of critical mineral supply chains, the U.S. must work with allied partners to generate new pipelines for mineral projects overseas, diversify global sources of mineral inputs and dismantle predatory marketplace distortions.

A plurilateral trade agreement and other complementary initiatives should leverage the collective advantages of U.S. international partners and allies at each stage of the critical mineral life cycle—from research, development and exploration, to mining, processing and recycling—to effectively rebalance and secure the global critical mineral market.

By advancing these recommendations, we can reshape and secure mineral supply and production networks for manufacturers, reduce unsustainable dependencies on China and strengthen U.S. national and economic security.

Advance Critical Mineral Projects and Diversify Access to Inputs

Global partnerships for catalytic project financing: A plurilateral agreement should promote strategic joint financing by the U.S. and partner governments for critical mineral projects both in the U.S. and overseas across the entire mining and critical mineral supply chain. Joint financing is needed to accelerate and scale investments in infrastructure, logistics and mineral recycling.

Agencies like the Export-Import Bank, the U.S. International Development Finance Corporation and the U.S. Trade and Development Agency should fast-track co-financing of critical mineral initiatives with partner governments, incorporating long-term offtake agreements. Congress can amplify these efforts by expanding the capabilities of both EXIM and DFC. The Departments of War and Energy should facilitate new projects through more expansive use of loans, loan guarantees and purchase commitments.

Empowering EXIM and DFC

- Raise the EXIM default cap
- Raise the DFC 25% cap on total project investment and 10% ceiling on aggregate exposure with high-income countries
- Reform the DFC equity scoring model to a risk-adjusted approach
- Promote the DFC political risk insurance program for projects in emerging markets

Single Windows to expedite overseas investments: Parties to a plurilateral agreement should simplify and streamline permitting and regulatory processes for mineral projects through the creation of dedicated "Single Windows" or single points of contact within the host government for applications and approvals for mineral investment projects. Governments could employ Single Windows to develop centralized portals for tender and application documentation, clarify requirements and incentives and establish expedited approvals.

"First rights" commitments for U.S. investors: A plurilateral agreement should secure the right for U.S. investors to be first in line to receive opportunities for investments in critical mineral assets overseas, along with preferential access to extract minerals through long-term offtake agreements. The agreement should enable countries to exchange potential tenders and projects at the earliest practicable moment, and host countries should offer extended operating licenses, tax credits and other cost-recovery programs under the preferential terms of the plurilateral agreement. In partnerships with mineral-rich countries, the USGS can help map reserves and identify opportunities for new projects, which can deliver strong market signals for early-stage U.S. and allied investment.

Key Investment Protections

- National and minimum standard of treatment
- Protection from expropriation
- Freedom from performance requirements and localization mandates
- Facilitation of financial transfers
- Transparent publication of laws and regulations
- Transparent bidding processes

Favorable investment conditions for U.S. investors: Under the agreement, partners should commit to basic protections for U.S. and allied investors, eliminate limitations on foreign exploration and resource utilization, protect assets owned and operated by the parties, and provide for neutral and robust enforcement mechanisms. Parties to the agreement should also ensure state-owned enterprises do not benefit from unfair advantages that distort investment flows or competitive bids for public tenders, drawing on guidelines from the Organization for Economic Cooperation and Development as the basis for SOE commitments.

Zero-for-zero tariffs for critical minerals and important industrial inputs: A plurilateral agreement must provide manufacturers in the U.S. with a runway of streamlined, low-cost access to both critical minerals and industrial inputs like machinery for extraction, processing, refining and recycling to accelerate more investment and innovation across the full manufacturing base. This could be achieved through a "speed pass," as proposed in the NAM's U.S. Manufacturing Investment Accelerator Program. An agreement that empowers domestic capacity with essential manufacturing inputs will provide opportunities for increased U.S. exports of critical minerals and related products, including a wide array of globally competitive U.S. derivative products.

Pooled industry demand for essential, small-volume minerals: To strengthen market buying power, a plurilateral agreement should pool manufacturing demand for certain critical minerals and rare earth elements, like yttrium, scandium and gallium, that are used in small-volume quantities or that require high purity to meet strength and durability requirements. Manufacturers purchase these minerals in smaller quantities from fewer suppliers, leaving them acutely vulnerable to supply chain disruptions and price manipulations with limited bargaining power. By pooling demand among manufacturers in the U.S., the agreement would establishing stronger market power for mineral procurements from overseas markets, including to fill the U.S. Strategic Critical Minerals Reserve through Project Vault.

Accelerated R&D for mineral recovery, recycling and substitutability: A plurilateral agreement should create a platform to bring together international partners to advance research on mineral reclaim yields, acquire used rare earth cores and magnets to recycle rare earth elements, utilize secondary recovery as another supply source, and accelerate development and deployment of technologies for separating and sorting scrap. Such efforts would bolster U.S. R&D leadership in critical mineral technologies and reduce dependence on China.

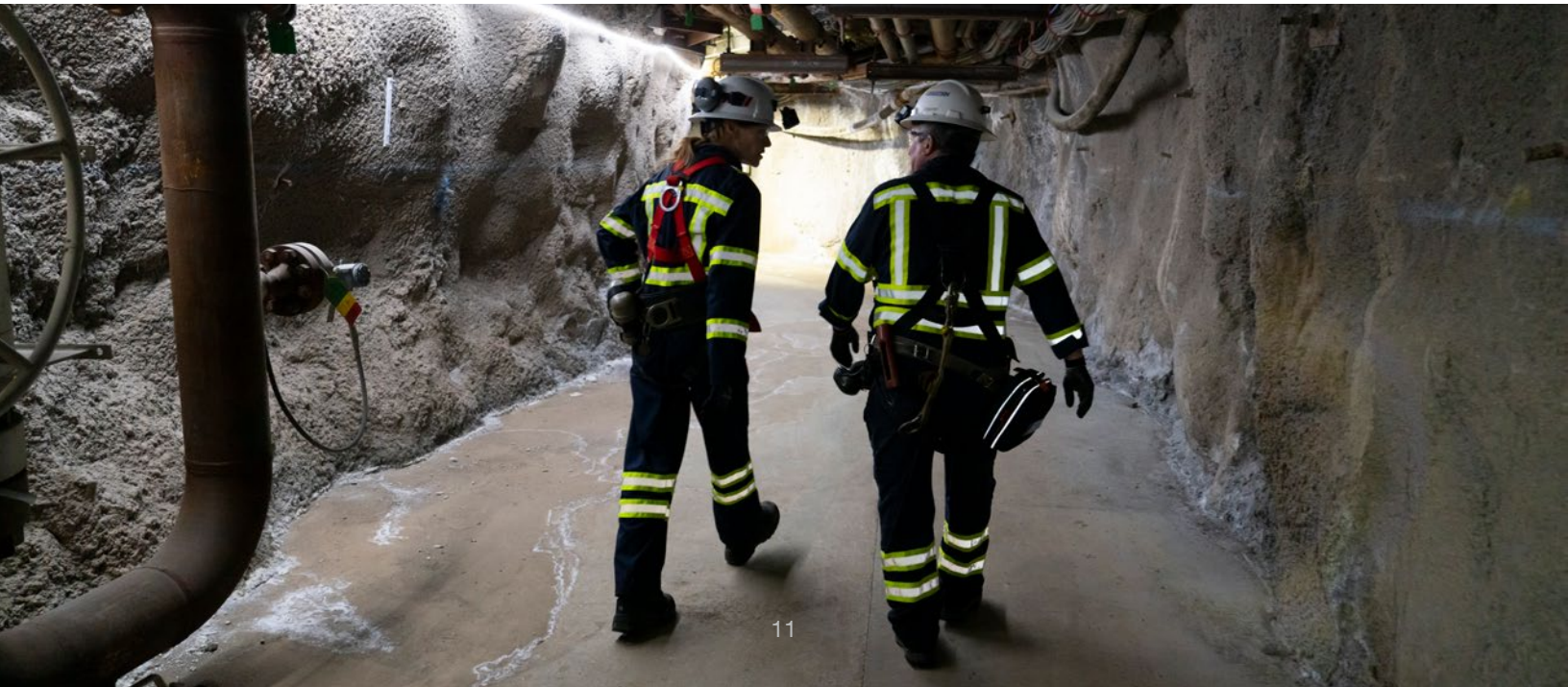
Dismantle Predatory Marketplace Distortions

An information clearinghouse for price transparency: To counter price manipulation of critical minerals, markets require transparent and accurate global data on mineral production, supply and trade flows. The plurilateral agreement should establish a critical mineral information clearinghouse to develop market-based price signals and serve as a counterbalance to predatory nonmarket practices. The clearinghouse should serve as an alternative to direct price mechanisms, which have different impacts across the value chain.

An enabling partner like the OECD should institutionalize and operate the clearinghouse, leveraging market economy data and methodologies to estimate data from nonmarket economies. This clearinghouse could also develop resilient prices that account for true costs of mineral production and utilize warehousing to facilitate mineral storage and logistics.

Industry-led standards to combat regulatory arbitrage: A plurilateral agreement can drive new investment into global supply chains by establishing a predictable, consistent and transparent regulatory environment across borders, while eliminating loopholes for exploitation by nonmarket actors. The U.S. and partner countries should adhere to high standards for transparency, traceability and sustainability, building on G7 and OECD guidelines on responsible critical mineral supply chains. Countries should promote industry-led standards development and certification.

Disciplines on export restrictions by nonmarket actors: A plurilateral agreement must address the abuse of export restrictions on industrial raw materials. The U.S. and partner countries should discuss approaches to ensure export restrictions do not create undue trade distortion among the parties and understand the impact on domestic jobs and investments.



Who Should Join a Plurilateral Trade Agreement on Critical Minerals?

By deepening strategic partnerships and coordinating investments across allies, the U.S. can compete more effectively with China and reduce vulnerability to geopolitical risks. U.S. allies and partners each offer a different mix of resources and capabilities at different stages of the critical mineral lifecycle. The nuances among partner countries should be reflected in U.S. policymaking and strategies.

Category	Examples
Mineral suppliers: Natural endowments that complement those in the United States	Canada, Germany, Japan, Mexico, South Africa, Brazil, Indonesia, Australia, Chile, Peru, the Democratic Republic of the Congo, Cook Islands, Guinea, Poland, Norway, Spain, Ukraine, Saudi Arabia
Processing and refining countries: Important capacity to avoid continued reliance on China	Japan, Canada, South Korea, Argentina, Chile, Estonia, Finland, Indonesia, Malaysia, Netherlands, United Kingdom
Technology hubs: Similar advanced capabilities to partner on research and innovation consortiums, data exchanges, testing facilities and design tools	Australia, Japan, Canada, European Union, Chile
Investor and buyer markets: Coordination to avoid competition over scarce resources and ensure long-term access to overseas capacity	Japan, South Korea, European Union, United Kingdom
Recovery and recycling: Opportunities to partner on co-investing strategies, best practices and alignment of interoperable standards to promote closed-loop supply chains	France, Germany, Japan, South Korea, Brazil, Norway

Manufacturers need policies that increase America's ability to leverage our domestic critical mineral resources while also strengthening the resilience and reliability of global critical mineral supply chains.

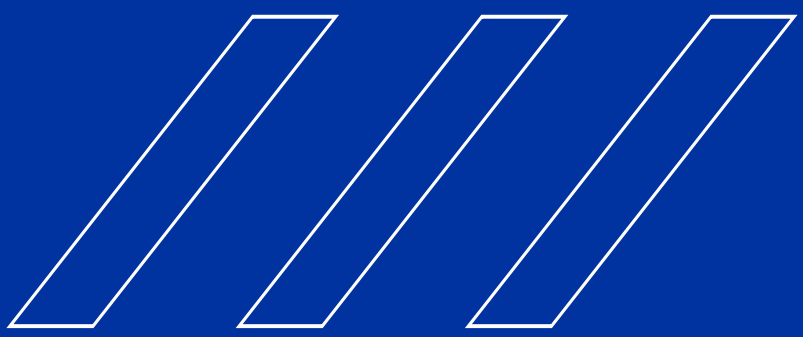
Achieving these goals requires a sustained and holistic approach of both domestic and international policy solutions, ensuring Congress and the executive branch work hand-in-hand with private sector stakeholders and partners around the world.

- Domestically, policymakers must facilitate the resources manufacturers need to launch projects, streamline the processes to put shovels in the ground through permitting reform and invest in a pipeline of skilled workers to benefit local economies and ensure the long-term growth of the industry.

- Internationally, the U.S. must leverage strategic partnerships with allies to rebalance the global mineral market, develop sustainable and diversified sources for critical minerals and advance opportunities and access for manufacturers in the U.S.

The cost of inaction is too great. China's dominance over critical minerals is the result of decades of industrial strategy, and America requires bold and strategic action to reset this dynamic.

Manufacturers urge policymakers to advance these comprehensive solutions to protect our national security and empower American competitiveness for the 21st century.



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