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Testimony before the House Natural Resources Subcommittee on Oversight and Investigations

"Dependence on Foreign Adversaries: America's Critical Minerals Crisis"

February 9, 2023

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Chairman Gosar, Ranking Member Stansbury, and Members of the Subcommittee

Thank you for the opportunity to testify before you on reducing America's dependence on irresponsibly sourced materials. Please accept this testimony on behalf of Earthworks, a nonprofit organization dedicated to protecting communities and the environment from mineral impacts, while supporting the clean, just, equitable, and rapid transition to renewable energy.

Building Domestic Circular Economy Infrastructure to Responsibly Secure Energy Transition Materials

Improving supply chains for energy transition materials means fixing the weaker links. The common misconception is that mining is the weak supply chain link. Instead, we need to build stronger links of circular economy infrastructure in the midstream and end-of-life management of energy transition materials. The best way to meet demand is to vest in facilities and methods to recycle, refurbish, reuse, and substitute the materials we already have.

The President's America's Supply Chains Executive Order, the Infrastructure Investment in Jobs Act (IIJA), and the Inflation Reduction Act are making important strides toward opening access to recycled materials and reducing our dependence on mined minerals. Currently, the circular economies from mostly allied nations produce and help supply markets for recycled materials. The United States remains years behind Asia's and Europe's circular economy infrastructure to supply our demands for responsibly sourced energy transition materials.

Last month, the European Union finalized their Battery Directive.[1] This regulation establishes the key suite of standards to responsibly secure supplies for energy transition materials. Batteries sold in the EU market will come with a traceable QR code/label known as a battery passport and requirements for recycled content, extended producer responsibility, and supply chain due diligence. These are similar to the standards a

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[1] Please see https://data.consilium.europa.eu/doc/document/ST-5469-2023-INIT/en/pdf

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California state working group recommended to their legislature[2] as well as what IIJA directed the Department of Energy grants to consider.[3]

Research indicates that with the right policies in place, we can create a more circular economy that may approximately halve global demand for certain minerals, like cobalt, lithium, and nickel, key to the clean energy transition.[4] As the market for secondary use of materials from electric vehicle batteries matures, this further reduces pressure to source from new mines.

In addition to policy fixes, the US Government has several tools available to enhance material supply chain security and reduce pressure to source from irresponsible mines. Government procurement and consumer pressure both play important roles driving incentives and innovation in more responsible material sourcing. Major consumers, including automakers and electronics companies, have also directed their suppliers to source more responsibly. Some have committed to the Initiative for Responsible Mining Assurance (IRMA), which independently audits and certifies environmental and social performance at mines.[5]

America's Critical Mineral Industrial Complex Designed to Reduce Supply Chain Disruption

We acknowledge the importance of supply chain security in certain materials. However, we challenge the notion that our public lands agencies should, or even could, resolve the geopolitics and economics of specialized, internationally-traded commodities. While domestic mines will source some raw materials, the task of managing supply chains has almost nothing to do with mining. Congress designated that task to other agencies, aside from those managing public lands, with well-established tools to reduce supply chain risk, including for energy transition materials.

The Energy Policy Act of 2020 and IIJA directed the Departments of Commerce (DOC), Defense (DOD), Energy (DOE), State (DOS), Interior's United States Geological Survey (USGS), and other agencies to build a vast critical minerals consortium.[6] Congress has repeatedly provided these agencies with broad authorities to stockpile minerals, impose

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[2] Please see Lithium-ion Car Battery Recycling Advisory Group Final Report. Prepared by CalEPA and UC Davis, March 16, 2022. Available at: https://calepa.ca.gov/wp-content/uploads/sites/6/2022/05/2022_AB-2832_Lithium-Ion-Car-Battery-Recycling-Advisory-Goup-Final-Report.pdf

[3] Please see IIJA, Public Law 117-58, Sections 40207, 40208, and 40209.

[4] Please see Dominish, E., Florin, N., Wakefield-Rann, R., (2021). Reducing new mining for electric vehicle battery metals: responsible sourcing through demand reduction strategies and recycling. Report prepared for Earthworks by the Institute for Sustainable Futures, University of Technology Sydney.

[5] Please see responsiblemining.net

[6] See Consolidated Appropriations Act of 2021, Public law 116-260 Sections 7001 IIJA Public law 117-169 Sections 40201-40211

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trade restrictions, negotiate agreements, promote research, develop workforces, and discover alternatives. They blend tradecraft and statecraft with engineering, research, and development to reduce a material's criticality. Often, this means finding substitutes, diversifying supply, imposing trade restrictions, or increasing recycling, reuse, and collection. President Biden's America's Supply Chains Executive Order, with support from the 117th Congress, uses three main strategies to manage supply chain risks in energy transition materials.[7]

1) Lowering geopolitical risk of a supply chain disruption by diversifying sources;

2) Secondary recovery of materials from oil, gas, and mine waste; and

3) Materials recycling, reuse, design, substitution, and building a circular economy

To diversify sources, in March of 2022, the Biden Administration invoked the Defense Production Act to secure a reliable supply chain for five minerals used in batteries that power electric vehicles and other clean energy infrastructure.[8] The Defense Department has also vested in mining and mineral processing projects in California,[9] Texas,[10] and Idaho.[11] Last year, Congress provided DOD $1 billion in the FY 23 NDAA for their National Defense Stockpile.[12] The State Department has engaged in diversifying sources

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[7] Please see White House's 100 Day Reviews under Executive Order 14017 (June 2021). Available at: https://www.whitehouse.gov/wp-content/uploads/2021/06/100-day-supply-chain-review-report.pdf

[8] Please see Presidential Determination No. 2022-11 of March 31, 2022. (87 Fed. Reg. 19775, April 6, 2022). The order refers to lithium, cobalt, nickel, graphite, and manganese.

[9] Please see Press Release (February 22, 2022) DoD awards $35 million to MP Materials to Build U.S. Heavy Rare Earth Separation Capacity. Available at: https://www.defense.gov/News/Releases/Release/Article/2941793/dod-awards-35-million-to-mp-materials-to-build-us-heavy-rare-earth-separation-c/

[10] Please see Press Release (February 1, 2021) DOD Announces Rare Earth Element Award to Strengthen Domestic Industrial Base. Available at: https://www.defense.gov/News/Releases/Release/Article/2488672/dod-announces-rare-earth-element-award-to-strengthen-domestic-industrial-base/

[11] Please see Press Release (December 19, 2022) DoD Issues $24.8M Critical Minerals Award to Perpetua Resources. Available at: https://www.defense.gov/News/Releases/Release/Article/3249350/dod-issues-248m-critical-minerals-award-to-perpetua-resources/

[12] Please see Congressional Research Service: FY 2023 NDAA National Defense Stockpile. Available at: https://crsreports.congress.gov/product/pdf/IN/IN12041

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through their Mineral Security Partnership,[13] Energy Resources Governance Initiative,[14] Clean Energy Resources Advisory Committee,[15] and USAID's "Green Minerals" Challenge,[16] to name a few.

As the US Government diversifies supply chains for energy transition materials, we urge agencies to require due diligence in accordance with internationally accepted standards. In particular, we call on the State Department and other agencies to uphold Indigenous Peoples' rights with explicit mention of their right to self-determination and right to Free Prior and Informed Consent (FPIC), as described in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)[17] and the International Labour Organization Convention 169 (ILO 169).[18] While voluntary standards do not substitute for required due diligence, multi-stakeholder certification standards like IRMA can help some mining-impacted communities verify compliance.

For mine waste recovery, IIJA provided a huge boost to the United State Geological Survey's new Earth MRI to, among other things, map and characterize the concentrations of energy transition materials in existing mine waste.[19] USGS established pilot projects in Colorado and New Mexico for this purpose. USGS has also partnered with the DOE's National Energy Technology Laboratories (NETL) on promising research and development in recovering materials by dissolving magnets with copper-salt solutions, microbial bioleaching, phytomining, and other mine waste processing techniques that reduce carbon footprint and adverse environmental impact.[20]

[13] Please see Media Note (September 22, 2022): Minerals Security Partnership Convening Supports Robust Supply Chains for Clean Energy Technologies. Available at: https://www.state.gov/minerals-security-partnership-convening-supports-robust-supply-chains-for-clean-energy-technologies/

[14] Please see State Department ERGI fact sheet, available at: https://www.state.gov/wp-content/uploads/2019/06/Energy-Resource-Governance-Initiative-ERGI-Fact-Sheet.pdf

[15] Please see Media Note (March 18, 2022) Inaugural Meeting of the Clean Energy Resources Advisory Committee. Available at: https://www.state.gov/inaugural-meeting-of-the-clean-energy-resources-advisory-committee/

[16] Please see Press Release (November 15, 2022) USAID Calls for Innovators to Counter Corruption in the Green Minerals Industry. Available at: https://www.usaid.gov/news-information/press-releases/nov-15-2022-usaid-calls-for-innovators-to-counter-corruption-in-the-green-minerals-industry

[17] Please see Resolution Adopted by the UN General Assembly September 13, 2007, Article 19. Available at: https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf

[18] Please see International Labour Organization C169- Indigenous and Tribal Peoples Convention (1989) (No. 169). Available at: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C169

[19] Please see https://www.usgs.gov/special-topics/earth-mri

[20] Please see Science News (Jan. 20, 2023): Recycling rare earth elements is hard. Science is trying to make it easier. By Erin Wayman

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For the circular economy, the Department of Energy announced the American Battery Minerals Initiative providing $2.8 billion in IIJA funds for domestic mineral processing and battery manufacturing.[21] DOE also announced a subsequent award of about $73.9 million devoted to battery recycling.[22] These DOE Loan Program Office awards should be subject to the same due diligence standards as support from other federal agencies (i.e. State Department), where applicable.[23] DOE's partnerships with the Critical Materials Institute, NETL, USGS and the West Virginia University Water Resources Institute offer exciting opportunities to strengthen supply chains for energy transition materials and stimulate domestic circular economy infrastructure.[24]

Providing the right blend of incentives and mandates will drive more investment where it is actually needed: in battery manufacturing, collection facilities, and related midstream green infrastructure. Transitioning the minerals we already mined once, to build what we now need, will drive the circular economy forward. These alternatives to mining may help source the materials we need with fewer adverse impacts to climate, sacred and cultural sites, wildlife, and water.

No alternative is perfect. Even with more robust material reuse and collection, new hardrock mines on public lands will still provide minerals. However, sourcing minerals from public lands under a law explicitly designed to further settler-colonialism only furthers environmental injustice and puts an equitable transition out of reach. Legislative and regulatory reform can create responsible mining policies that put protection for communities at the forefront, to ensure that any new mines are built with the best standards in place.

Policy Developments and Resources Devoted to Domestic Mine Permitting

Even though domestic mining is not the weak supply chain link, Congress has already invested significant time and resources into mine permitting. The Inflation Reduction Act (IRA) included $1 billion to support timely and effective environmental reviews across federal agencies, which should lead to better, more equitable outcomes, and help avoid

[21] Please see DOE IIJA Battery FOA-2678 Fact sheet Available at: https://www.energy.gov/sites/default/files/2022-10/DOE%20BIL%20Battery%20FOA-2678%20Selectee%20Fact%20Sheets%20-%201_2.pdf

[22] Please see DOE IIJA Electric Drive Vehicle Battery Recycling and Second-Life Applications FOA-2680. Available at: https://www.energy.gov/sites/default/files/2022-11/Recycling%20and%20Second-Use%20Selections%20Factsheets%2011-16.pdf

[23] Please see DOE's LPO RFI at 87 Fed Reg. 33141 (June 1, 2022) See also DOE's 2022 Unified Regulatory Agenda at: https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202210&RIN=1901-AB54

[24] Please see note 20.

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litigation.[25] Additionally, the Fiscal 2023 budget will help fund public lands management agencies to perform more thorough mining reviews.

These mine permitting developments build upon those in the Infrastructure Investment in Jobs Act (IIJA). IIJA made permanent the Fixing America's Surface Transportation Act Permitting Council (Permitting Council), which, in January 2021, added hardrock mining as a covered sector.[26] In November 2022, the Administration announced the Permitting Council will devote $5 million to support consultations with federally recognized Tribes in hardrock mine permitting.[27]

IIJA also required the Interior Department to identify process improvements to hardrock mine permitting.[28] A coalition of Tribes, Indigenous-led organizations, and conservation groups have also petitioned Interior for rules that, if finalized, would result in more timely, efficient decisions for hardrock mine permits without sacrificing necessary public input.[29] In response to both, the administration convened the mining reform Interagency Working Group, which we hope recommend mining rule improvements consistent with the petition.[30] These updates would also help lead to a fair hardrock mine permitting process, delivering more certainty to both the mining industry and impacted communities.

The IRA also created an advanced manufacturing production tax credit (45X) for mining companies to receive an additional handout equal to 10% of their production costs for the value of the 50 metals listed in the IRA.[31] The law also allows taxpayers who buy an eligible clean vehicle to receive a credit of up to $7,500 (30D). The IRA's 30D mineral sourcing requirements will likely spur more mining and mineral processing, both within the United States and in free trade agreement countries. These same sourcing requirements could also spur most needed investment, innovation, and development in circular economy infrastructure to refurbish or recycle these cars' batteries.[32]

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[25] Please see IRA, §§ 23001, 40003, 50301-03, 60402, 60116, 60505.

[26] Please see 86 Fed. Reg. 1281 (January 8, 2021).

[27] Please see DOI Press Release (December 1, 2022) Departments of Interior, Agriculture Advance Mining Reforms Aimed at Protecting and Empowering Tribal Communities. Available at: https://www.doi.gov/pressreleases/departments-interior-agriculture-advance-mining-reforms-aimed-protecting-and

[28] Please see IIJA Section 40206 Critical minerals supply chains and reliability

[29] Please see https://www.regulations.gov/document/DOI-2022-0003-14647

[30] Please see 87 Fed Reg. 18811 (March 31, 2022)

[31] Please see Public Law 117-269 IRA Section 13502 Advanced Manufacturing Production Credit 45X(b)(1)(M) "in the case of any applicable critical mineral, an amount equal to 10 percent of the costs incurred by the taxpayer with respect to production of such mineral."

[32] Please see IRA Section 13401(e). By January 1, 2024, 40% of the value of the battery's critical minerals must be mined in the United States or free trade agreement countries. Or recycled within North America. The percentage increases annually until 2028 when the threshold reaches 80%.

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Today, it is possible to make some clean vehicles with the IRA's sourcing requirements. But to truly benefit from this credit, the United States and our allies need better circular economy infrastructure to supply demands for energy transition materials. Congress and the Treasury should view the mineral sourcing provision as an opportunity to allow more taxpayers to claim the credit and build domestic supply chain strength within the circular economy links.

The European Union Battery Directive already contains recycled content requirements similar to the IRA's optional recycling provision. The Treasury Secretary should issue 30D mineral sourcing rules that allow constituent materials from the EU to qualify for the credit in order stimulate investment and help supply meet demand for recycled battery materials.[33]

Conclusion

Earthworks strongly supports immediately transitioning to a justly-sourced renewable energy economy to prevent further destruction from the climate crisis. The climate crisis has disproportionately harmed, and continues to harm, those who have contributed to it the least. We also share serious concerns about mining's impacts to communities under the current laws and rules.

Rather than rely on extraction, we urge Congress and the Administration to drive innovation and development of circular economy infrastructure to collect, recycle, reuse, substitute, and reduce minerals used in existing clean energy technologies, thereby lowering overall demand for new mining. Where mining is absolutely necessary, it must occur in a more sustainable, just, and equitable way.

For companies, this means accountability to human rights and environmental due diligence standards, and only operating with the full consent of the communities they impact. IRMA is the only voluntary standard that helps achieve this goal.

For Congress, this means passing circular economy legislation and the Clean Energy Minerals Reform Act. Converting to a leasing system for hardrock minerals—just like the one that oil and gas companies use today–would help provide certainty to the permitting process and result in more timely and socially acceptable decisions.

For public lands agencies, this means modernizing their mining rules to deliver a more fair, just, and equitable hardrock mine permitting process for mining-impacted communities.

For other federal agencies, this means forming the linear supply chain links for minerals into a circle, and requiring companies perform gender-responsive human rights and environmental due diligence across their supply chains.

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[33] See Treasury Department Revenue Procedure 2022-42 December 12, 2022. Available at: https://www.irs.gov/pub/irs-drop/rp-22-42.pdf

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The renewable energy transition must not touch off the kind of mining rush that has historically killed or displaced untold numbers of Indigenous and other marginalized peoples, destroyed sacred and cultural resources, stolen lands, scarred landscapes, and polluted water and climate. Building a sustainable economy based on clean energy gives us an historic opportunity to confront the legacy of injustice to Indigenous communities and damage to the public lands held in trust for future generations. Seizing that opportunity requires policies prioritizing recycling and reuse over new mining. Where new mining is acceptable, the mining industry must undertake the most responsible methods. Thank you for your consideration.

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