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EXAMINING WAYS TO ENHANCE OUR DOMESTIC CRITICAL MINERAL SUPPLY CHAINS

WEDNESDAY, MAY 21, 2025

House of Representatives,

Subcommittee on Oversight

and Investigations,

Committee on Energy and Commerce,

Washington, D.C.

The subcommittee met, pursuant to call, at 10:00 a.m., in Room 2123, Rayburn House Office Building, Hon. Gary J. Palmer [chairman of the subcommittee] presiding.

Present: Representatives Palmer, Balderson, Dunn, Crenshaw, Weber, Allen, Fulcher, Rulli, Guthrie (ex officio) Clarke, DeGette, Tonko, Trahan, Fletcher, and Ocasio-Cortez.

Also Present: Representatives Caster, Carter, and Joyce.

Staff Present: Ansley Boylan, Director of Operations; Byron Brown, Chief Counsel, Environment; Sydney Greene, Director, Finance and Logistics; Emily Hale, Staff Assistant; Brittany Havens, Chief Counsel, Oversight & Investigations; Heidi High, Senior Counsel, Oversight &

Investigations; Calvin Huggins, Staff Assistant; Megan Jackson, Staff Director; Noah Jackson, Clerk, Communications & Technology; Sophie Khanahmadi, Deputy Staff Director; Mary Martin, Chief Counsel, Energy; Sarah Meier, Counsel and Parliamentarian; Ben Mullaney, Press Secretary; Kristen Pinnock, GAO Detailee; Seth Ricketts, Special Assistant; Jackson Rudden, Staff Assistant; Chris Sarley, Member Services/Stakeholder Director; Kaley Stidham, Press Assistant; Matt VanHyfte, Communications Director; Katherine Willey, Senior Counsel, Environment; Austin Flack, Minority Professional Staff Member; Will McAuliffe, Minority Chief Counsel, Oversight & Investigations; Constance O'Connor, Minority Senior Counsel; Christina Parisi, Minority Professional Staff Member; Harry Samuels, Minority Counsel, Oversight & Investigations; and Caroline Wood, Minority Policy Analyst.

Mr. Palmer. Good morning and welcome today's hearing entitled Examining Ways to Enhance Our Domestic Critical Mineral Supply Chains. Today's hearing addresses the crucial challenges that the U.S. is facing how to decouple and derisk ourselves from China and other foreign adversaries and build critical mineral supply chains within the U.S.

Our country's been blessed with abundant natural resources and the world-changing technology needed to harness those resources. Unfortunately however, we is become over reliant on other nations to supply and process critical minerals.

Today's hearing is an opportunity to examine how to increase capacity and resilience on American critical mineral supply chains again. Critical minerals are used in items we use everyday like smartphones, computer hard drives, televisions, batteries and light bulbs. They are also used in elements of our electrical grid and have defense applications.

The United States used to be the leading producer and refiner of many critical minerals, including rare Earth elements. By the late 1990s, however, most of this industry dissolved and moved overseas. According to a review of the United States Geological Survey mineral commodities summaries 2024, the United States was 100 percent import reliant for 12 of the 50 critical minerals on the 2022 critical minerals list and 50 percent import reliant for an additional 29.

This predicament we find ourselves in is not a new problem but a problem that has been many years in the making. So how did we get here? It's a combination of things, including birds and permitting and other regulations, uncertainty in commodity pricing, market manipulations and increasingly litigious society. This has made our domestic environment unattractive to investors as a result.

For example, getting domestic process in refining facilities up and running is an extremely long process. It can take 10 to 20 years for a new process and renewed processing plants and

smelters become operational. That is in addition no the lengthy mine development process in the U.S., which is the second longest mine development online in the world. Because of this burdensome red tape, companies have not incentivized to invest domestically so instead they invest abroad.

Moreover, even when U.S. companies operate mines in the U.S., the hesitancy to invest in domestic processing at refining facilities has put us in a position where foreign adversaries monopolize other parts of the supply chain. For example, in 2019 one rare Earth mine in the U.S. sent 98 percent of its raw materials to China because the U.S. lacked the capacity to process those minerals domestically. As a result, we must import our own product back from China after it is processed. But China's recent export bans on certain rare Earth elements critical to the U.S. make this nearly impossible.

I cannot convey the seriousness of this issue enough. This is an economic issue and an issue of national security. We as a Nation must ensure that we have access to these materials and the ability to process them without reliance on foreign adversaries, including China.

I want it applaud President Trump for declaring a national energy emergency on day 1 of his presidency, emphasizing that the U.S.'s identification, production and refining of critical minerals are inadequate to meet domestic needs. Since then, President Trump has signed several executive orders related to critical minerals, including ordering immediate measures to increase American mineral production. We look forward to working with the Trump administration on the mission to increase the capacity, resilience, and domestic critical supply chains.

I also want to thank our witnesses for joining us today to share their expertise and guide our discussion about the challenges in building domestic critical mineral supply chains and the opportunities we have to improve our domestic supply chains moving forward.

I now recognize the ranking member of the subcommittee, Ms. Clarke, for her opening statement.

[The prepared statement of Mr. Palmer follows:]

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Ms. Clarke. I thank you, Mr. Chairman. And good morning to our panelists.

This is a very important issue and one that in the past was precisely the kind of hearing that was appropriate for congressional oversight and debate. However, this is not the past, today is different. Last week, my colleagues across the aisle showed what they care about and it's not investing in critical mineral supply chains. They showed how far they are willing to go and the countless communities they are willing to betray just to give their billionaire donors even more money. It is truly upsetting.

The American people are calling out to Congress for help and Republicans seem determined to ignore them. As ranking member of this subcommittee, I'm deeply committed to keeping our Nation safe, for the ability of families to make ends meet, for the preservation of our environment and for holding this administration accountable. I share my colleague's concern about the state of our domestic critical mineral supply chains. These core elements are necessary to some of the biggest industries in the United States, our technology, energy, transportation, defense sectors all heavily rely on the materials that for the most part we are forced to import from other countries and this is not sustainable.

The global race for critical minerals like lithium, cobalt, rare Earth minerals and nickel is intensifying. These valuable resources are the building blocks of modern technology and the clean energy economy. Electric vehicle batteries, wind turbines and semiconductors all depend on these minerals. And that dependence is only growing.

Not only is the United States forced to rely on foreign sources for these minerals, often they come from or are processed in countries that are our adversaries. This dependence makes our vulnerable -- makes us vulnerable and exposes us to risk too big to bear. To remain competitive and secure, we must enhance our own ability to supply critical minerals, starting with enhancing our

responsible mining abilities, scaling up refining and processing and expanding recycling and reuse. Democrats enacted the historic bipartisan infrastructure law and the Inflation Reduction Act, two historic pieces of legislation that among other things funded domestic mineral processing capacity and supported research and development. The IRA, which was passed without a single Republican vote, invested over $350 billion in clean energy manufacturing and critical mineral development. It provided tax credits to companies that sourced materials either domestically or from allies, and created thousands of good paying union jobs and reducing emissions.

This progress and these gains are under threat from Republicans who are trying to repeal or defund these vital programs. These successful investments are being destroyed by the short-sighted push from Republicans to give giant tax cuts for billionaires and large corporations. Their obsession with rewarding Trump's friends undermines our abilities to fund critical programs that support the clean energy transition, infrastructure development and domestic manufacturing. We know overcoming the climate crisis will demand bold creative solutions to the challenges that lie ahead. As co-chair of the smart cities caucus, I believe technology, technology that often relies on critical minerals, can make communities more sustainable, resilient and livable.

We must continue investments that incentivize innovation and clean and critical mineral technology, particularly those that minimize environmental and community impacts. We must also invest in workforce development and support historically underserved communities. So let me be clear, tax cuts for billionaires do not strengthen our supply chains. They do not help build battery factories or lithium processing plants or rare Earth recycling facilities. They do not train workers for the green jobs of the future. They do it not reduce our dependence on foreign regimes for vital resources. What they do is starve the government of the revenue we need to make smart strategic investments in America's future.

Instead of supporting clean energy innovation and domestic supply chain resilience, Republicans are fighting to extend and expand tax breaks for the wealthiest Americans at the expense of investments in climate jobs and national security.

I call on my colleagues across the aisle to abandon this reckless agenda of tax breaks for billionaires and instead support investments in a strong, secure and just clean energy future. The American people deserve leadership that puts the long-term strength of our economy and planet above short-term political gains. We must continue to invest in our domestic mineral supply chain, support innovation and equity and reject the failed tax policies that undermine our progress. Our national security, our climate and our prosperity depend upon it.

I yield back.

[The prepared statement of Ms. Clarke follows:]

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Mr. Palmer. Thank you. The chair now recognizes the vice chairman of the committee, Mr. Balderson, for 5 minutes for an opening statement.

Mr. Balderson. Thank you, Mr. Chairman. And my opening statement is on behalf of chairman Guthrie.

Chairman Palmer, thank you for holding this hearing on critical minerals. This is an important opportunity to discuss a path forward to end our over reliance on foreign adversaries for critical minerals, Including the ways we can create comprehensive and resilient domestic supply chains for critical minerals.

The U.S. imports at least half of its supply for 41 out of 50 critical minerals on the U.S. Geological Survey's 2022 critical mineral list and nearly a quarter of those 50 minerals are entirely imported.

The U.S. reliance on foreign nations for critical minerals, mainly China, is not a new issue. And the committee held hearings on critical minerals last Congress. However, given recent events by the Chinese Communist Party, CCP government, this dire situation continues to escalate. Specifically, in August and October 2023, the People's Republic of China began restricting the export of graphite, gallium and germanium to the U.S. And in July 2024 announced a State-run database to ensure that extraction, export and use of all rare Earth resources are strictly controlled by China.

Most recently in December 2024, the PRC banned exports of three rare elements, antimony, gallium and germanium to the U.S. Then as recently as February of this year, the CCP restricted the export of five additional critical minerals, including tungsten, which is used in artillery shells and armor plating and indium which is used in phones, televisions and semiconductors.

Just last month, the PRC put seven more rare Earth elements that are virtual to the American economy and national security on the export control list, including samarium. Samarium which plays

an essential role in nuclear reactors. These is export controls and bans are significant, especially given that China has a monopoly on critical mineral processing and finding particular for rare Earth minerals. Specifically China refines up to 90 percent of world's supply of rare Earth elements and other critical minerals including graphite, lithium, cobalt and copper.

Additionally, the heavy rare Earth elements on the PRC's export control list are only refined in China. China's monopolization of critical mineral supply chains, combined with the increasing number of restrictions they have placed on critical mineral exports will have a significant effect on our national economic energy security.

If we want to assure our national security, energy dominance and the U.S. as a leader in technology innovation such as AI, we must prioritize our critical mineral supply chains. Because of these developments it is essential that we decouple from China and create resilient and robust critical mineral supply chains that are separate from foreign adversaries.

One pathway towards this is to develop domestic capabilities across all elements of our supply chain. The volatile nature of geopolitics makes our over resilience on other countries, even friendlier ones, an unsustainable strategy. This is why we need to shift our focus on domestic mining and midstream process.

While the U.S. used it have more robust critical mineral supply chain, over time the American critical minerals industry has become unappealing to many investors due to burdensome regulations, as well as financial and political uncertainty. It's time to address it these issues and break free from China's strong hold.

President Trump has already signed executive orders to boost American critical mineral supply chains to remove bottlenecks and relieve unnecessary red tape to operationalize critical

mineral companies. Now it is Congress' turn to step in and help identify main challenges and opportunities to strengthen America's critical minerals supply chains.

I want to thank the witnesses for being here today and I look forward to your testimony. I also want to thank the subcommittee chairman, Mr. Palmer, for his interest and leadership on this important issue.

I yield back.

[The prepared statement of Mr. Balderson follows:]

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Mr. Palmer. Thank you. The chair now recognizes the gentlelady from Colorado, Ms. DeGette, for 5 minutes for an opening statement.

Ms. DeGette. Thank you so much, Mr. Chairman. I'm here sort as the Democrats' utility plier this morning, filling in for Mr. Pallone.

All of us agree that securing our energy future and reducing reliance on China's critical mineral supply chain are urgent. However, my Republican colleagues' legislative priorities lead me to wonder whether they seriously care about this issue or are just using it as yet another talking point. Actions speak louder than words. And unlike our Republican counterparts, Democrats have actually passed legislation to make the investments necessary to build a strong supply chain for critical mineral extraction and processing.

The Bipartisan Infrastructure Law and Inflation Reduction Act, passed in the last Congress, invested hundreds of billions of dollars to reshore American manufacturing jobs and build momentum towards durable domestic supply chains. These investments are critical to ensure we are competitive players in booming clean energy industries so we can once and for all end our reliance on China for critical minerals.

These investments also supported downstream manufacturers so that the critical minerals extracted and processed in the United States are used to fuel domestic manufacturing and create jobs for American workers. These laws provided the Department of Energy with resources for programs that invest along the entire supply chain while expanding existing programs with a proven track record.

DOE's loan programs office is a great example of how Democratic investments are a win-win for Americans. The loan programs' office was set up to invest Federal tax dollars in cutting edge projects that reduce our reliance on imports and create jobs for American workers, while generating

billions of dollars of net profit for taxpayers. And yet, not one Republican on this committee supported either of those laws, despite the laws making investments predominantly in Republican districts. And with the bill that passed this committee last week, the GOP Tax Scam, Republicans are giving up on investing in domestic energy supply chain manufacturing and clean energy, all so they could give giant tax breaks to billionaires who don't need them. That bill will kill jobs, hurt domestic businesses and manufacturers and drive up Americans' energy bills. And now that bill could be on the floor as early as today.

Friends, we were starting to see Democratic investments pay off. The Bipartisan Infrastructure Law, the Inflation Reduction Act and the CHIPS and Science Act were creating hundreds of thousands of jobs across the country in both Democratic and Republican districts. DOE programs created and expanded by these laws are financing first of their kind mineral processing and advanced manufacturing projects across the country.

Meanwhile, other programs such as DOE's Office of Manufacturing and Energy Supply Chains were investing in projects to reshore manufacturing jobs and provide skills training so American workers would be ready to take the jobs that the Democratic investments were creating in their communities. But now all of that's being undone by a reckless and rudderless administration and a compliant Republican Congress. Clearly my friends across the aisle are not serious about solving problems with supply chains. And I look forward to talking to this entire panel today about these challenges and issues.

With that, Mr. Chairman, yield back the balance of my time.

[The prepared statement of Ms. DeGette follows:]

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Mr. Palmer. I thank the gentlelady.

That concludes member opening statements. The chair would like to remind members that pursuant to the committee rules all members' written opening statements will be made part of the record.

We want to thank our witnesses for being here today and taking time to testify before the subcommittee. You will have the opportunity to give an opening statement, followed by a round of questions from members.

Our witnesses today are Ms. Abigail Hunter, executive director at SAFE Center for Critical Minerals Strategy. Ms. Katie Sweeney, executive vice president chief operating officer at the National Mining Association. Mr. Alexander Herrgott, president of The Permitting Institute. Mr. Casey Hammond, principal at Capitol Pillar, LLC. And finally Mr. David Howell, director of strategy at the Battery Advocacy Technology Transformation Coalition, otherwise known as The BATT Coalition. We appreciate you being here today and I look forward to hearing from you.

You are aware that the committee's holding an oversight hearing and when doing so has the practice of taking testimony under oath. Do any of you have an objection to testifying under oath?

Seeing no objection, we'll proceed. The chair advises you that you are entitled to be advised by counsel pursuant to House rules. Do you desire to be advised by counsel during your testimony today?

Seeing none, please rise and raise your right hand.

Do you promise to tell the truth, the whole truth, and nothing but the truth, so help you God?

Seeing the witnesses answered in the affirmative, you are now sworn in and under oath, subject to the penalties set forth in title 18 section 1001 in the United States Code.

With that, we will now recognize Ms. Hunter for 5 minutes to give an opening statement.

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TESTIMONY OF ABIGAIL HUNTER, EXECUTIVE DIRECTOR, SAFE CENTER FOR CRITICAL MINERALS STRATEGY; KATIE SWEENEY, EXECUTIVE VICE PRESIDENT & CHIEF OPERATING OFFICER, NATIONAL MINING ASSOCIATION; ALEXANDER HERRGOTT, PRESIDENT, PERMITTING INSTITUTE; CASEY HAMMOND, PRINCIPAL, CAPITOL PILLAR LLC; AND DAVID HOWELL, DIRECTOR OF STRATEGY, BATTERY ADVOCACY FOR TECHNOLOGY TRANSFORMATION COALITION (BATT COALITION)

TESTIMONY OF ABIGAIL HUNTER

Ms. Hunter. Thank you, Chairman Palmer, Ranking Member Clarke, Congresswoman DeGette and members of the subcommittee. My name is Abigail Hunter and I serve as executive director for SAFE Center for Critical Minerals Strategy. Thank you for the opportunity to testify today.

SAFE is a nonpartisan, nonprofit. We work with retired military leaders, Fortune 500 executives and technical experts to offer actionable recommendations on energy security and economic resilience.

Let me start first with why this matters. What enables an AI data center to compute at massive scale. Gallium based semiconductors and rare Earth magnets. What enables trucks to haul more freight with less fuel, advanced aluminum components and nickel-based super alloys for light weighting. What keeps a military drone operational in a contested airspace? A lithium ion battery. Minerals are not just inputs, they are strategic assets. And getting these minerals is just step one.

Whether the United States get mineral from our own subsoil, partner countries, the seabed, recycled sources, all of them must be transformed before they can be used in advanced manufacturing. But China realized this early through subsidies, cheap capital, predatory pricing and overseas investments. It built a dominant position in the midstream.

Today, China possessions 65 percent of global lithium refining, over 70 percent of battery-grade nickel and cobalt and more than 90 percent of graphite and rare Earth processing. Their grip extends through global facilities run by State-owned entities and proxies, forcing American firms not to compete with the market, but with a foreign government.

And Beijing has shown consistently its willingness to use that dominance coercively. In just the past 2 years it has imposed expert controls on gallium, germanium, graphite, rare Earths and more, specifically targeting the U.S. defense and technology sectors. This is not market competition, it is strategic leverage.

Beijing understands that controlling processing means controlling the pace, price and availability of next generation manufacturing.

Now when we talk about processing, it's not just one steps, it's dozens. Different feed stocks must be crushed, milled, separated, refined and in many cases chemically converted to achieve the purity specification and form required for manufacturing.

That's why policy cannot stop at extraction. It veils the technical aspects of processing, as well as the opportunities that alternatives and recycling present.

Second, the economics matter. Some minerals like zinc are primarily products. But others like germanium and antimony are byproducts, only recovered when we refine larger metals. Byproducts economics rarely justify investments alone. So if we don't have midstream capacity for zinc, we lose a source of access germanium antimony.

Third, market maturity varies. While metals like aluminum trade on open exchanges, emerging and obscure minerals don't. They often lack transparent price discovery and are far more susceptible to manipulation. The effectiveness of tariffs, price supports and stockpiling strategies will vary depending on the market maturity and capacity. One size fits all won't work.

While processing varies by mineral, some barriers are shared. First, no processing projects survives without buyers. If there is no U.S. demand, producers are either forced to sell to China or compete with Chinese suppliers abroad, often at a disadvantage.

Second, costs are a major barrier. U.S. projects face higher capital costs from equipment and construction and frequent costs overruns, especially first of a kind projects, as well as regulatory compliance and expensive inputs like energy driving up operating costs. We can't compete with China's subsidized model without derisking the investment.

Finally, policy must match market reality. If restrictions like tariffs or sourcing rules supply outpace available supply, we risk undercutting U.S. manufacturing rather than strengthening it.

The U.S. cannot secure its mineral supply chains without fixing the processing bottleneck. This is where the strategic risk, economic barriers and national security converge. But it's also where smart, well-sequenced policy can have the greatest impact.

To meet this moment, we must anchor minerals policy in midstream chokepoint realities without processing domestic upstream extraction and downstream manufacturing will still rely on an adversary.

Tailor strategic strategies by materials, accounting for key differences and processing technologies, market structures, qualification requirements, as well as opportunities and alternatives in recycling.

Align trade, sourcing and incentivize policies with infrastructure and commercial readiness, so as not to outpace marketable viability.

Make U.S. processors and recyclers competitive, with financial tools that lower the capital, attract, investment and mitigate regulatory and inquest costs disadvantages compared to China.

And collaborate with allies to source interim feed stocks non Chinese capacity and create resilient rules-based trade networks capable of resisting coercive market manipulation.

SAFE thanks the subcommittee's leadership in highlighting these issues and stands ready to support in your efforts to strengthen American mineral security. Thank you.

[The prepared statement of Ms. Hunter follows:]

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Mr. Palmer. The chair now recognizes Ms. Sweeney for 5 minutes for her testimony.

TESTIMONY OF KATIE SWEENEY

Ms. Sweeney. Good morning, chair Palmer, Ranking Member Clarke, members of the subcommittee. Thank you for the opportunity to discuss one of most pressing issues we face as a Nation, how we secure our domestic minerals supply chains.

The complexity of the issue is extraordinary, but the urgency to act is unprecedented. It is not an overstatement that secure mineral supply chains will help determine world order in the future. Our economic and national security and the ability to innovate are absolutely reliant on access to minerals, both the ability to get them out of the ground and to process them into final products.

Given the committee's jurisdiction, my testimony primarily focuses on our lack of processing capabilities. And for simplification, I use the word processing as shorthand for any of the steps that come after getting the ore out of the ground, such as smelting and refining.

Importantly, extraction and processing must scale together to create a secure mineral supply chain simply producing more ore that must be exported to China or other countries for processing or building more processing capacity without the domestic ore to feed it, solve little. Fortunately, the right policies can address both of these potential points of failure.

The world faces unprecedented mineral demand growth. And China's long-term global mineral strategy includes billions of investments in projects across the globe that have enabled the country to exert its mineral dominance.

China controls roughly 85 percent of the mine to metal processing capacity, over 73 percent of the world's cobalt, 59 percent of lithium, 68 percent of nickel, 85 percent of rare Earths, 90 percent of graphite and nearly all of the germanium and tungsten.

Copper is following the same trend. In 2024, China processed approximately 44 percent of the world's total copper, compared to the U.S.'s three percent. And China's not the only foreign adversary exerting such control, Russia and allied countries dominate the uranium supply chain.

How did we go from one of the world's leading producers in the post World War II era to the over reliance on foreign sources? A major reason complacency. We've woken up periodically and rattled our sabers when China's flexed its muscle over rare Earths or other minerals, but then accepted short-term solutions or called for further studies.

Now that there is widespread and bipartisan acknowledgment of the undeniable scope of the problem. We can act decisively to institute solutions. We can successfully derisk and decouple our mineral supply chains from foreign adversaries. We have significant advantages in the United States. A vast mineral endowment, skilled workforce, world leading safety labor and environmental standards, existing energy and transportation infrastructure and renewed administration and congressional focus.

Solutions should include Federal investments and incentives to accelerate U.S. efforts to break free of China's hold on the mineral supply chain, such as acceleration of private and public capital investments and domestic mineral production projects, tax credits, additional use of Defense Production Act funds, leveraging of Export-Import Bank programs, preferred loans, incentives for domestic sales and price support for domestic producers.

Other needed solutions, permitting reform to reduce bureaucratic and judicial delays, research and development investments to improve recovery rates for mining, mineral processing,

recycling and from unconventional sources such as tailings or coal waste. Friend-shoring, while the U.S. rebuilds capacity and when necessary to supplement U.S. capacity. Facilitation of workforce development through educational grant programs, to support mining and trade schools and training.

Our Nation's future as a global leader depends on secure mineral supply chains. The need for these minerals, process materials and the end use product is not going away. It is clearly not a question of if, but where and where the where matters.

Producing minerals here at home as opposed to countries such as China ensure that these activities will be conducted in accordance with world leading environmental labor and safety regulations while simultaneously creating vast economic benefits.

Through misguided land management, regulatory and tax policy, we incentivize the offshoring of these critical supply chains. And recognizing the grave vulnerability we created, we have moved with alarming complacency to confront it. We now have a unique and urgent opportunity to turn the tide, the National Mining Association appreciates the committee's prioritization of this issues and is eager to help craft solutions. Thank you.

[The prepared statement of Ms. Sweeney follows:]

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Mr. Palmer. The chair now recognizes Mr. Herrgott for 5 minutes for his opening statement.

TESTIMONY OF ALEXANDER HERRGOTT

Mr. Herrgott. Chairman Palmer, Ranking Member Clarke, thank you for the opportunity to testify.

As president of The Permitting Institute, it should be no surprise that I'll be talking about permitting today. A nonpartisan, prodevelopment trade association founded in 2021. Our mission is urgent and unapologetically practical. Every month a permitting delay increases projects costs, erodes investor confidence and strengthens foreign control over sectors vital to American industrial leadership.

Sectors depend on secure integrated mining processing and refining supply chains have by failed by Congress for more than 20 years. Even under ambitious World War II style industrial realignment, I need to be clear, we have already lost. Building a domestic supply chain will take at least 20 years. It is not realistic for us to do that. The uncomfortable truth, our chance to compete with China on critical mineral processing closed in the 1990s. Our viable goal now is simply to remain economically relevant in a race that we are far behind in.

TPI was founded not merely to critique broken systems, but to actively collaborate with developers, Federal and State agencies, Congress and communities to deliver real permitting reform. Our members represent billions in investment across energy, pipelines, transmission, mining, transportation, include practitioners who authored the largest and most impactful permitting laws we have in this country, executed them and navigated them through the White House.

After 15 years in the U.S. Senate, as associate director of White House Counsel of Environmental Quality and the first executive director of the Federal Permitting Council, which pushed through the largest wind and solar facilities and mining facilities in the country, I founded TPI to prove a core principle. We can deliver a legally sound project approvals or denials within a year without compromising environmental cultural or historic protections.

The idea that faster means weaker environmental reviews is absolutely false. Our cornerstone environmental laws on average of the 63 that govern infrastructure were written 40 years before the creation of the internet. The Green New Deal, Waxman-Markey, McCain-Lieberman, The Clean Power Plan, even going back to the Inconvenient Truth, all of those climate plans were modeled after Denmark, Norway and Germany. Those countries, simultaneously to changing their clean energy ambitions, also have permitting regimes that permit dirty mines, oil and gas facilities and drilling within 6 months.

In 10,000 pages of The Clean Power Plan, the Green New Deal, IRA, all of those climate bills, not one mention of permitting or critical minerals in any of those bills. It is frustrating to listen to discussions about IRA and 45Z and money and commitment. And the reality is is that moving to an entirely different sector, without having the industrial supply to allow for that to be built, is nonsense. We have put ourselves in an untenable position where we put ourselves entirely dependent on China.

In 2001, China produced less than 30 percent of the refined rare Earth elements. It only took them 10 years to command more than 80 percent of the rare Earth processing taking over aspects of Indonesia and Africa that we will never get back. This dominance is deliberate.

While we were fighting over coal, versus natural gas, versus wind, versus solar and during the fracking revolution, China made their dominance a deliberate geopolitical exercise. It made mineral

processing a chokepoint for American economic security ambitions. And for someone that has been to China and hard rock mined multiple occasions, which many of Congress actually haven't, our permitting gridlock is now a national vulnerability that China exploits as they laugh at us as we debate about whether or not funding an IRA or whether or not actions in various bills speed up permitting actually made a difference.

The biggest misconception in critical minerals discussions is that mining is the hardest the part. It's not. The chokepoint is processing and refining. Consider graphite wants to outlast a capable of supply in the entire U.S. graphite demand while China floods global markets with synthetic graphite we move too slowly.

Unforced and of immense proportions. Similarly, South 32 Hermosa could be America's sole significant source of battery drain manganese technology, vital for technology and defense, yet has been dragged along and could be sped up and permitted in operation later this year, yet faces unnecessary hurdles with agencies that are not coordinated. These are things that are easily fixable, but can't get out of our own way.

And then I'd take us to NewRange, the nickel copper project in Minnesota, representing of the largest copper nickel deposits in the United States. It's faced years of delay after EPA abruptly reversed its progress, allowing China additional time to secure resources in places like Mozambique and South Sulawesi, Indonesia.

Each project has immense potential that remains hampered by litigation and bureaucratic efficiencies, symptoms of a permitting system needing modernization, but facing the entrenched political ideologies that could somehow opening up bedrock environmental statutes means that we are going to deliberately impact communities, whether it be an environmental justice community or whether it be my friends in the Tribal communities in Arizona and the west.

The reality is is that we're going to need to build this stuff. There is always a balance between human activity and the natural environment. And we either stop using iPhones, we stop using elements that we absolutely need or we fix the problem.

And one last thing is --

Mr. Palmer. The gentleman's time has expired.

Mr. Herrgott. Okay.

[The prepared statement of Mr. Herrgott follows:]

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Mr. Palmer. We can cover that in Q&A.

The chair now recognizes Mr. Hammond for 5 minutes for his opening statement.

TESTIMONY OF CASEY HAMMOND

Mr. Hammond. Mr. Chairman, members of the committee, thank you for the opportunity to testify. My name is Casey Hammond. I am a former staffer from the Committee on Natural Resources. And during President Trump's first term, I worked at the Department of the Interior. In that role, I oversaw the Bureau of Land Management which is responsible for public lands, including mining and mineral development.

Since leaving the administration, I'm helping others navigate the Federal permitting process. When he was my boss, former Interior Secretary Ryan Zinke developed a graphic to demonstrate a few reasons why fixing our mineral dependence must be a priority.

The attachments for my testimony demonstrates the different pieces of equipment carried by a Navy SEAL, the different minerals needed for the equipment and more importantly how dependent we are on foreign sources, notably China, for those minerals. The graphic highlights that we are 50 percent or more dependent on foreign sources for at least 23 minerals carried by a Navy SEAL. Now imagine how those graphics might look for jets, missiles, satellites and even simple rounds of ammunition.

As a how staffer, I'd hoped that the Federal permitting process was administered by impartial civil servants diligently and fairly applying the rules, immune to the political pressure from Washington. However, I learned that significant decisions rarely occurred without the direct involvement of political appointees.

I recall being very frustrated early in the time at Interior to find out after the fact that a project had frantic proponents waiting for our review. But those who knew of the project and its urgency withheld such information from those of us who might act. Fortunately, I worked for secretaries who installed strict time limits that they personally tracked and such hide-the-ball game playing was virtually eliminated.

Unfortunately, this is not always the case. About a year ago, I became aware of a critical mineral project that had been waiting 3 years for an environmental assessment to conduct exploration. For context, when I was at Interior, our internal rule mandated that we must complete an EA in 90 days.

Exploration is simply an early investigation with minimal intrusion to the environment. How do you convince a company to invest hundreds of millions of dollars to develop a mine when it takes 3 years for permission to drill small holes from the back of a pickup truck.

To address our critical mineral supply challenges, we must instill confidence in the mining community. Project proponents should be assured that if they follow the law, they will be fairly considered and will receive an unbiased and timely decision.

The EPA with its expertise in water and air analysis is a cooperating agency when it comes to permitting mines. However, a solitary EPA analyst decides to interject themselves into a project after the NEPA comment period, they can pollute the administrative record and deter project proponents from moving forward.

This could apply to the Fish and Wildlife Service, actions taken by historic preservation officers and others putting projects at risk while unilateral actions of those without accountability. Congress must direct that all requisite agency reviews are done in parallel.

Addressing mineral dependence also involves the judiciary. A new mine could be fully operational, employing hundreds of people, but then the district court judge rules that the decision to approve the mine was arbitrary and capricious, shutting down the mine for months or years. The appropriate role and scope of judicial review must be addressed.

We must also address domestic minerals processing. Consider copper, currently there are only three primary smelters in the U.S., but they aren't always operating. That means incredibly if you opened a copper mine tomorrow, it is likely that you would plan to send your product to China for processing because they have capacity and it is less expensive than doing it here. In that case, it doesn't matter how quickly you permit a mine, you're still sending the mineral to a potential adversary.

I'm encouraged by the swift action take by the President thus far. Secretary of the Interior Burgum responded to the President's directives, blazing a new path to decrease review times for environmental assessments from an average of over a year down to just 28 days.

I also spoke with career officials within the agency that are now welcoming mining projects in their jurisdictions. They want this work and that attitude matters. It makes a distinct impression on potential developers.

I want to offer a few suggestions to this Congress. First, narrow the scope of NEPA reviews, lay out clear certain requirements for project applicants, encourage investment through a motivated, responsive and efficient loan program office at DOE. Create a mobile and responsive agency workforce and create an environment with ability.

We have an opportunity to fundamentally change the way we engage with the mining industry and generate domestic prosperity.

Thank you, Mr. Chairman. I'm happy to take any questions the committee may have.

[The prepared statement of Mr. Hammond follows:]

******** COMMITTEE INSERT ********

Mr. Palmer. Thank you.

The chair recognizes Mr. Howell for 5 minutes for his opening statement.

TESTIMONY OF DAVID HOWELL

Mr. Howell. Chairman Palmer, Ranking Member Clarke, and distinguished members of the subcommittee. Thank you for this opportunity to provide an update on The BATT Coalition's efforts to establish and secure the domestic upstream manufacturing supply chain for lithium-based battery materials.

I'm Dave Howell. I'm the strategy director.

Mr. Palmer. Mr. Howell, would you pull your microphone closer, please?

Mr. Howell. Yes, sir.

Mr. Palmer. Thank you.

Mr. Howell. I'm Dave Howell. I am the strategy director for The BATT Coalition. Our 15 members provide a collective voice of the battery upstream supply chain and extraction synthesis and processing to produce battery grade and critical materials. The BATT Coalition supports implementation of a comprehensive legislative and Federal agency policy strategy that will maximize the market incentives and trade protection necessary to grow this critical industry in the U.S. and promote long-term resiliency.

The domestic high-capacity battery supply chain is at a tipping point. Battery demand in the U.S. is expected to grow in the coming years. High-capacity batteries, like lithium-based batteries are critical for defense systems like drones, portable power, personal wearable batteries and almost every major weapon system.

In commercial applications like electric vehicles, grid storage and consumer electronics, these markets all utilize many of the same material supply chains and typically only differ in cell design and format, which is why these markets are inherently interconnected. This is a critical area for U.S. energy dominance and innovation, as well as presents an urgent national security imperative to establish a strong supply chain, free of Chinese influence.

The main supply chain concerns exist in the upstream materials market, where China maintains an over 70 percent global marketshare of almost all battery materials from refined precursors to finished products. And in certain cases, China controls well above 90 percent of the global market for some critical lithium battery materials. Chinese state backed firms continue to build infrastructure for current and future battery materials demand.

It is important to point out that battery materials and processing can represent over 70 percent of the value of lithium battery manufacturing, making the upstream portion of the supply chain critical to our domestic economy in supporting manufacturing jobs.

Policy actions are vital to building and protecting domestic upstream battery material supply chains. BATT members encourage Congress to pursue policy remedies such as the recently introduced Bipartisan Critical Minerals and Manufacturing Security Act, CMMSA, by Dr. Raul Ruiz from California and Congressman Gabe Evans from Colorado. It represents an important first step in establishing favorable tax policies to this critical domestic industry.

Specifically, CMMSA increases IRA 45X advanced manufacturing production tax credit for battery electrode materials production to 25 percent of production cost. And it also includes the cost of the raw materials. It includes foreign entity of concern restrictions to prohibit FEOCs from accessing U.S. Government tax credits. It adds North American free trade agreement material sourcing requirements due to the eligibility rules and expands electrode active material definition to

include precursor materials, binders and solid state electrolytes. That also strongly encourages action and in additional measures that Congress continue to support full funding and timely execution of the Department of Energy's battery materials and processing manufacturing program, funded through section 40207 of the Infrastructure Investment and Jobs Act.

To support competitive cost share grants to establish domestic manufacturing of batteries and refining and processing of battery materials. That Congress continues to support funding and timely execution of the Department of Energy's loan program and that the DOE loan program prioritized applications to support critical materials production.

And that Congress supports Federal agency funding to advance innovative solutions to support the upstream material supply chain.

In closing, we appreciate your leadership and consideration of these vital Federal initiatives. The coalition stands to be a resource on these critical material matters. On behalf of The BATT Coalition, I appreciate the opportunity to provide testimony before you today. Thank you and I look forward to your questions.

[The prepared statement of Mr. Howell follows:]

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Mr. Palmer. I thank all of the witnesses for their testimony. We will now move to questioning.

The chair recognizes the gentleman from Ohio, Mr. Balderson, the vice chairman of the subcommittee for 5 minutes.

Mr. Balderson. Thank you, Mr. Chairman. I thank you all again for being here.

My first two questions are -- my first question is directed for Mr. Herrgott and Ms. Sweeney. The U.S. has the second longest timeline for a mine to be approved. And we have heard anecdotes of projects waiting decades for approval to break spray round or begin operations. Why is it that approvals of projects in the U.S., whether it be a mine or the processing, refining or recycling facility for critical minerals takes so long in the U.S.?

Mr. Herrgott, I'll let Ms. Sweeney go first, please. Ladies first.

Ms. Sweeney. Thank you so much. One of the main reasons is lack of coordination amongst the various agencies that are involved in the permitting process. Most mining projects will require a variety of permits. We've had member companies that have had mines that require over 90 permits. So there's a lot of coordination. I think another problem is we have the statute of limitations for NEPA is 6 years. It's way too long. The litigation component adds decades or can add decades to the permitting process.

Mr. Balderson. Thank you. Mr. Herrgott.

Mr. Herrgott. Too many decisionmakers spread across too many parts of the country that are not equipped to deal with the modern technological advances and projects that we're dealing with today.

The bottom line is that projects must -- many of the laws that govern these projects are -- create obstacles that then create litigation footholds for anyone that opposes the project to

use rhetorical legal process to dispute the inherency of whether they like the project or not. You should not be able to use the law to stop a project that you otherwise disagree with on the merits. On balance, 80 percent of the projects that are sued in this country end up winning in court, but they are abandoned because they are exsanguinated from capital.

Anyone that is throwing capital in to build a pipeline, a mine, or any type of energy generation has got to be crazy at this point in the country. We do not reward that. Meanwhile, the rest of the world is building things ten times faster than us, while we allow for projects to languish in a debate.

The other reality is if when I walked into the Department of the Interior under the last administration and talked to my good friend, Tracy Stone-Manning and Secretary Haaland, and then I asked how many environmental impact statements do you have moving through the Department of the Interior, whether it be BLM or BOEM, it took 4 weeks for them to come back with an answer and even that was inaccurate.

We have no transparency in this black box of a system. We are using legacy paper-based systems to deal with some of the most complicated projects the world has ever seen. The Keystone Pipeline was $2.7 billion. The average project size now is about $6 or $7 billion and we are still using a calculator to deal with things that we should be using AI and technology for. I could go on and on, but I don't want to waste any more of your time.

Mr. Balderson. Well, thank you, you answered part of my follow-up question.

And Ms. Sweeney I'll also let you answer my follow up. How does this compare to other developed nations with similar labor and environmental standards?

Ms. Sweeney. It is not a good look for the United States when it comes to comparing to other major mining countries with similar standards. Australia and Canada, for example, do the permitting in at least half the time that the U.S. does.

Mr. Balderson. Thank you. Mr. Herrgott, does the current complicated and burdensome permitting process and wide scope of judicial review for critical mineral production, processing or refining make it difficult for smaller companies to also thrive in the U.S.?

Mr. Herrgott. Absolutely, absolutely. In fact, the abandonment rate for a small, mid-cap company to invest and explore on a mining facility you've already spent close to $200 million before you even submit an application to the Federal Government just on technological feasibility. The only people that are going to be able to fund that are sovereign wealth funds or people who like to lose money.

I mean, at this point, there has been so much cast aside on the regulatory uncertainty on building anything in this country, let alone the fact that most of what we fight about is how we move and generate electrons. When it comes to critical minerals, we talk about how we have lost the war with China, it is because we have failed to realize and connect the dots that 90 percent of the materials in this room are from China, are from China.

We have not -- and I had this debate with Mr. Grijalva, the late Mr. Grijalva, about the fact that he would malign and demagogue the mines that were being built in the United States, but at the same time failed to appreciate that if China yanked the cord, Congress would cease to operate.

Mr. Balderson. Thank you very much.

Mr. Chairman, I yield back.

Mr. Palmer. In your mentioning of the late Mr. Grijalva -- I should have done at the very beginning -- I just learned this morning that my friend, Gerry Connolly, passed last night. And I want to extend condolences to Mr. Connolly's family and to my Democratic colleagues and to many of my Republican colleagues.

Gerry was a -- genuinely a friend. He was one of my favorite people to work with. We rarely agreed on anything and he would absolutely destroy your arguments, but he didn't destroy the people. And we're going miss him.

The chair recognizes the ranking member of the subcommittee, the gentlelady from New York, Ms. Clarke, for 5 minutes for her questions.

Ms. Clarke. Thank you, Mr. Chairman. And likewise, Gerry indeed was a very special colleague with an a ability to debate and to get his point across without being mean spirited so we will dearly miss him. We hold his family in our prayers.

Critical minerals are essential --

Mr. Palmer. Would you start the clock back at 5 minutes? I don't want to count her comments on Mr. Connolly as part of her --

The gentlelady is recognized.

Ms. Clarke. Thank you, Mr. Chairman.

Critical minerals are essential to everything from cell phones and solar panels to the weapons and kit our military uses to protect our national security. That is why our reliance on imported critical minerals is so concerning.

China dominates the global supply chain for critical minerals critical mineral processing. Relying on China for critical minerals undermines our national security and puts us at a competitive disadvantage. This is one reason why Democrats made comprehensive investments to bolster the domestic supply chain for critical minerals through the Bipartisan Infrastructure Law and Inflation Reduction Act.

Mr. Howell, in your testimony you say that there cannot be an industrial base for defense critical systems without a robust industrial base for commercial battery materials. How are the defense and commercial supply chains for critical minerals interconnect as stated?

Mr. Howell. Thank you, Congresswoman. The Department of Defense and DOE commercial batteries are essentially same, particularly for critical materials and components of those batteries and lithium-based batteries particularly. So the cathodes, it's typically the same. It's either a combination of a nickel, cobalt, aluminum type cathode or manganese or on the anode side, it's graphite.

So both the commercial applications EVs, stationary storage, consumer electronics and defense application needs these high-capacity batteries so they are definitely interconnected.

Ms. Clarke. Very well, thank you. And it is clear that these challenges aren't going to solve themselves. When Democrats held the majority, we acted to reshore manufacturing and invested domestic supply chains for critical minerals.

Now that Republicans are in charge, it seems like they are more interested in canceling critical mineral investments to pay for billionaire tax cuts than building on the investments in the American -- in America that Democrats made over the last 4 years.

Ms. Sweeney, a Federal -- are Federal investments and critical mineral processors and other manufacturing that is downstream from critical mining projects a necessary part of building a robust and sustainable critical mineral supply chain?

Ms. Sweeney. I -- one of the recommendations that we have is to look at a variety of Federal investments to help support our getting away from China as our main source of critical minerals.

Ms. Clarke. Very well. We can serve as a catalyst for sure.

Ms. Hunter, what would happen to critical mineral projects that are just getting started if the Federal Government abruptly pulled back from BIL and IRA investments in domestic critical mineral extraction and processing?

Ms. Hunter. Thank you for the question. In my written testimony I talk about the importance of leveraging demand drivers so that we can source alternative sources of supply and encourage alternative sources of supply to come online. Unfortunately today, the market in most cases is that equilibrium for many of these minerals, but in some cases, it's actually at over capacity.

So we do have to center ourselves around new demand from robotics, AI, from a clean energy technologies to encourage manufacturers to reorient these supply chains.

I'm hopeful with the executive branch, with President Trump's leadership on these issues, the prioritization that we'll see this come together. Critical minerals policies demands certainly. And given its a bipartisan issue, I'm optimistic that we'll get there.

Ms. Clarke. Absolutely, hope springs eternal.

We cannot address our dependence on China for critical minerals and national security area without building a robust supply chain supporting our commercial needs. That means maintaining critical investment, including energy, vehicles, chips and that many other products made with critical minerals that Americans use every day.

Republicans say that they want to end our reliance on China for critical minerals and support American workers. But they have rejected and attacked every single policy aimed at accomplishing that goal. Democrats fought to end interdependency on China for critical minerals and support American workers when we controlled the Congress. We will keep fighting to protect investments and American workers, domestic manufacturing and clean energy.

With that, Mr. Chairman, I yield back.

Mr. Palmer. The chair now recognizes the gentleman from Florida, Dr. Dunn, for his questions for 5 minutes.

Mr. Dunn. Thank you very much, Mr. Chairman.

You know, to ensure the U.S. has a robust supply of critical minerals, private entities and the government have to navigate many market complexities and that includes the upstream extraction, midstream processing and downstream manufacturing.

If we can't compete with China on this and they are doing all these price setting, export controls and whatnot, the U.S. is simply not going to have the industry or the economy needed to produce these critical minerals. So we have to create an immediate need for every level of that supply chain.

For example, in order to have reliable minerals, we need to have qualifications and purity standards, which we don't seem to have set up right now.

Florida State University is in my district. It is home to the national magnetic field laboratory, the largest most powerful magnet lab in the world. I'm proud of that. The lab creates about $700 million a year in U.S. economic output. And these high magnetic fields are leading to discoveries in complex materials.

The researchers are working to develop U.S. based rare Earth supplies in Florida. FSU and industry partners are currently working new ways to remove we think over $30 billion of rare Earths in minerals that are in Florida's phosphogypsum stack, what they call gyp stacks, using the old phosphate mines.

This would create a U.S. supply for critical minerals needed to unleash American technologies energy needs and reduce our dependence on China.

What we discovered in Florida is that these gyp stacks have enormous reserves of rare Earths in them. And if we could separate them, we think we have decades and decades of supply. It's alarming that the United States must rely on China to require of the 50 most important minerals, rare Earth minerals, that we work with.

Something that hasn't yet been mentioned is that 27 of those 50 critical minerals can be found in the State of Florida.

RPTR KRAMER

EDTR HOFSTAD

[11:00 a.m.]

Mr. Dunn. Mr. Chair, I'd like to submit for the record a report from the FSU National Mag Lab, and it's entitled "Florida's Potential as a Production Center for Rare Earths, Critical Minerals, and Industrial Byproducts."

Mr. Palmer. Without objection, so ordered.

[The information follows:]

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Mr. Dunn. Thank you so much.

Ms. Hunter, you very clearly laid out America's market risks and the need for secure, qualified end products. You noted that, to justify execution, high-risk firms typically will require market pricing and strong demand signals over time.

Given these factors, how would you suggest the U.S. Government expand its commercial base for these critical materials and execute a deterrence strategy against China?

Ms. Hunter. First, I want to recognize that different types of American ingenuity coming out of the National Labs, universities to find alternative pathways, substitutes, different processes, even from biology, is very critical for us to explore as we decrease dependence on adversaries for these sources.

In terms of how the U.S. can help both creating more alternative sources of supply at home but then contending with these market manipulations that you laid out, Dr. Dunn, Congressman, I think we have to take kind of a two-pronged approach: first, dealing with the competitive disadvantages U.S. processors face, the many different costs and CapEx and OpEx that are higher in the United States compared to different parts of the world that I outlined in my written testimony; additionally, looking at partnership with allies so that we can make sure there's no circumvention of U.S. unilateral policies, like tariff sourcing provisions, through third-party markets so that our producers can compete on a level playing field.

These will be critical to ensuring American competitiveness.

Mr. Dunn. Thank you for that.

Ms. Hammond, China uses predatory tactics to block the U.S.'s ability to develop commercially and globally competitive domestic mining and production. We're suffering the consequences of decades of that and underinvestment, frankly, on our own part.

Does China's mineral dumping intentionally harm the development of U.S. industries? And, if so, what actions should we be taking? And is this a straightforward countervailing duties and anti-dumping case?

Ms. Hammond -- I'm sorry. Mr. Hammond.

Mr. Hammond. Oh. Thank you.

Well, that's one of the many challenges we face, right? How are we going to compete with China?

And my view, the strongest case we have is making it more attractive to develop here. We have to create an environment where mining companies feel that this is the best place for the investment.

Alex said earlier -- used the word "crazy." "You'd have to be crazy to develop here." And I've actually had a mine owner tell me that exactly, when I asked him. I was like, "You've to be crazy to be doing this here." And he said, "Well, in some other places, it's worse. But the minerals are here, so we're gonna try here." This was after he'd been locked up in court for a while.

But, in my view, yeah, that's our number-one -- has to be our number-one priority, is making this an attractive place to invest.

Mr. Dunn. Thank you very much.

My time has elapsed. Thank you very much, Mr. Chair. I yield back.

Mr. Palmer. I thank the gentleman.

The chair now recognizes the gentlelady from Colorado, Ms. DeGette, for 5 minutes for her questions.

Ms. DeGette. Thank you so much, Mr. Chairman.

Recently, we had a hearing in the Energy Subcommittee on the grid, and all of the witnesses at that hearing agreed that the energy sector is increasingly moving towards renewable energy.

And so I'd like to ask all of you: As we move towards renewable technologies like wind, solar, and battery storage, that's going to require materials like cobalt, copper, graphite, and other rare-earth minerals, correct?

Ms. Hunter?

Ms. Hunter. Yes, renewable energy sources typically depend on a multitude and variety of critical-mineral resources.

Ms. DeGette. And so, Ms. Hunter, in your testimony, you noted that the Advanced Manufacturing Production Credit made possible by the IRA would help to offset domestic critical-mineral mining costs. Is that right?

Ms. Hunter. Within the 45X production tax credit, there is a 10 percent for critical-minerals production, including critical-mineral inputs and indirect inputs. That can help with the distorted playing field that American processors currently compete on, insulating them also from the price manipulations that we've seen that have been used nefariously with certain minerals by the PRC.

Ms. DeGette. Thank you. I'm sorry to say that my Republican colleagues are trying to cut that funding, along with $500 billion in clean-energy incentives that would support American business.

So, Mr. Howell, I want to ask you: In your testimony, you pointed out the IIJA $6 billion investment in battery manufacturing is necessary to compete with global competitors like China. Is that correct?

Mr. Howell. That is correct.

Ms. DeGette. And so the President previously froze this IIJA funding stream and proposes to cut $15 billion in IIJA funds. So that's not going to help to help us become independent with these productions, is it?

Mr. Howell. It will not.

And do recognize that many of those programs are actually first-of-the-kind production facilities in the United States, so the Federal Government helping to buy down that risk is very important for private-sector investment.

Ms. DeGette. Hmm.

And building out a successful critical-minerals supply chain domestically is also going to require upholding the highest mine safety standards. Is that right?

Mr. Howell. Yes, ma'am.

Ms. DeGette. And why would that be?

Mr. Howell. The highest mine safety --

Ms. DeGette. Yeah. Why would you -- if you're gonna build out the network, some of your fellow witnesses here have suggested that we just -- and none of us think we should have unreasonable delays in permitting or anything like that. But, at the same time, as you're going to develop more domestic production, you still have to keep high standards. Is that right?

Mr. Howell. That is correct. And we have examples around the world. Australia is a great example of having very high environmental standards for mining and accelerated permitting.

Ms. DeGette. So it can be done. You don't have to sacrifice standards for speed.

Mr. Howell. That's correct.

Ms. DeGette. Okay.

Now, unfortunately, President Trump and Elon Musk's DOGE proposed eliminating more than 30 Mine Safety and Health Administration offices, where mine safety experts inspected over 17,000 sites last year.

I'm wondering, Mr. Howell, if you can tell me whether closing mine safety offices would mean there would be less oversight over mine safety practices.

Mr. Howell. I think that there could be less oversight.

I do think there's lots of room for improvement in mine safety inspection. AI was mentioned before, but bringing together Federal agencies, like the Department of Interior, Department of Defense, Department of Energy, and using the expertise that we have that's already located in those agencies could accelerate mine permitting and increase safety.

Ms. DeGette. I think that would be a splendid suggestion. And if you have any further thoughts on that, if you could supplement your testimony, that'd be really helpful to this committee as we try to develop bipartisan legislation.

I yield back.

Mr. Palmer. The gentlelady yields.

The chair now recognizes the chairman of the full committee, Mr. Guthrie, for 5 minutes for his questions.

The Chair. Thank you, Mr. Chair. Thank you for having this.

Sorry, I've been in the Rules Committee over in the Capitol Building most of the night, so I missed your testimony, so I apologize.

And, first, I want to just bring up -- I think everybody probably heard that our dear colleague Gerry Connolly passed away. And I mentioned him in our full committee. He was one of my dear friends here, he and his wife, Smitty.

And I told the story about where he brought her the wrong Valentine gift last time. This one, he was studying to be a priest. He was in the seminary. It was right before vows. And she had been a nun, his wife. And they met at a nonprofit thing later. They both -- she had left the -- anyway.

I was telling a -- we were on a NATO committee -- telling a friend of ours from Europe -- I said, "Well, Gerry was about to be a priest, and he married a nun." And he came to me, and he goes, "You make it sound like I was trolling the convent. You better tell that like it really is." I didn't think about that, the story of it. But, anyway.

So, gosh, what a man, what a wonderful person. So I'm sorry we've lost him.

Getting back to today -- and thank you, Mr. Chairman, for doing this.

Critical minerals, as we know -- we saw during the tariff issues when China was going to start restricting that and the leverage they had.

And so, Ms. Hunter, how critical are -- how are critical minerals and particularly rare-earth elements for their reliability for energy and also to be competitive with China for AI, which is part energy as well? Do you want to talk about that?

Ms. Hunter. Thank you for the question, Chairman.

Rare-earths are a really good example here of the importance across energy infrastructure, ensuring American energy dominance, and then also supporting new growing technologies like the AI revolution.

They get a lot of attention, rare-earth elements, for their application in permanent magnets, specifically used to propel wind turbines, also to use in electric motors for EVs. But their utilization across society is really outsized. When we're putting in place these new AI data centers, they have to remain cool; it is the rare-earth magnets that actually keep the fans going in these data centers, so critically important there as well.

Another good example besides rare-earths is copper and aluminum for their conductivity. They're used not only in transmission infrastructure but also in these data centers to make sure they can have that high level of computation.

The Chair. Okay. Thanks.

And so, Ms. Sweeney and -- or Ms. Hunter and also Ms. Sweeney -- the issue right now is China -- well, we need them anyway. But the issue right now is China.

And so could you talk about -- I was hoping Ms. Sweeney and Ms. Hunter could talk about it too. I think my question for you: What are the economic implications of not having our own supply. Ms. Hunter?

And then, Ms. Sweeney, if you'll talk first, is -- and talk to both of it -- is, my understanding is that China has tried to kind of drum up opposition in the United States for us to develop our own critical minerals and rare-earth elements, not only mining but processing as well.

I mean, how does China try to use market manipulation, any type of thing to prevent us or discourage us from developing this industry, which makes us more dependent on them? Can you give us examples of that?

Ms. Sweeney. Yes. A great example, I think, is the Jervois cobalt mine in Idaho. They were just about to open, they were fully permitted, and China dropped the price of cobalt, manipulated the market, dumped excess cobalt onto the market. And Jervois had to choose between operating a loss or closing, and they closed that facility.

The Chair. That's a prime target for trade action, is it? Should be.

So, Ms. Hunter, what are the national security implications if China keeps doing this and we don't have our own supply?

Ms. Hunter. There are very clear national and economic security implications if we don't find alternative supplies to China.

Again, rare-earths is a great example. With the most recent export controls that we've seen that have been somewhat deescalated, we heard -- you know, it was covered all over the news about how manufacturers who keep, you know, around 45 to 60 days of inventories are lacking alternative sources of supply, particularly for heavy rare-earths that we have to get processing on line for.

Last year, the USGS documented --

The Chair. All right. Thanks.

I'm just about out of time, but we have the biggest proponent-of-rare-earth-minerals chair in this committee right now, critical minerals, in Mr. Palmer, and we're going to all turn him loose and ourselves loose. What -- turning ourselves loose and having a game plan, two different things. I know he has a game plan. I'm trying to learn from him.

So what do you -- anybody. I'll just start with you guys -- suggest, what does Congress need to be doing -- what's the biggest impediment that Congress can help you solve to get rare-earths and critical-mineral processing in our Nation, stateside?

Start with Ms. Hunter and go down.

Ms. Hunter. Permitting reform and helping with the cost disadvantages for U.S. processors.

The Chair. Ms. Sweeney?

Ms. Sweeney. Ditto.

The Chair. Mr. Herrgott, do you want to --

Mr. Herrgott. Capital being put at risk. There's a 30-percent premium in the United States spent on unnecessary permitting costs. The IRA, all it did was offset half of that.

The Chair. Uh-huh.

Mr. Herrgott. So, if we sped up mining projects, we would see close to a trillion dollars of foreign direct investment pour into the United States, and you wouldn't need Keynesian-style Federal money.

Now, I'm not going to tell my members, that are going to slap me, that they don't like the free money. But at the end of the day, we need to change the way we think about it.

The Chair. That's what Mr. Palmer says, a trillion dollars. So you're saying he's right.

Mr. Herrgott. We have a narrow window where China is at the end of its useful life on what it built 20 years ago. It can no longer meet the purity standards that are required for AI semiconductors, cathodes, and the rest. So we have about a 2-, 3-year window where we need to get out of our own way and we might be able to catch up a little bit to China.

The Chair. Well, I'm not going to get to the other two of you, but I will say that the time to act is now. And so it's time for us to -- we're going to put some action into this.

Thank you very much. Appreciate it.

Mr. Palmer. I thank the gentleman.

The chair now recognizes the gentleman from New York, Mr. Tonko, for 5 minutes for his questions.

Mr. Tonko. Thank you, Mr. Chair and Ranking Member.

Today's hearing feels profoundly out of touch given the ongoing effort by my Republican colleagues to defund programs that invest in our ability to catch up and develop much-needed domestic critical-mineral supply chains.

Critical minerals are key to U.S. national security and economic prosperity. They're required for technologies like cell phones and optics, aircraft, and EV batteries, and their use is only growing.

The market for critical minerals was some $320 billion in 2022, which is double the size it was only 5 years earlier.

While we cannot lose sight of the challenges in developing critical-mineral supply chains, it is just as essential that the minerals we rely upon are sourced in a transparent and ethical manner. Last year, I sponsored the Critical Material TRACE Act, which would bring much-needed transparency and accountability to critical-mineral supply chains.

This bill would establish a DOE program that supports the development and adoption of digital identification systems for imported technologies, including EV batteries. Better monitoring and reporting would allow us to develop critical-mineral supply chains with partners that prevent human-rights violations and environmental harms.

So, Mr. Howell, what are the biggest gaps in current data and reporting systems for tracking the origin, processing, and trade of critical minerals?

Mr. Howell. The biggest gaps of data, Congressman, for tracing?

Mr. Tonko. Gaps in current data and reporting systems and for tracking the origin, processing, and trade of critical minerals.

Mr. Howell. Sure.

So, at this point, there's really no consistency in the type of data that's gathered. And so bringing consistency to the important data characteristics of sources and refined products and tracking those materials not only through extraction but refining and end uses.

And then, also, you could also add in recycled materials as well. And so you could develop a circular economy with many of these materials.

Mr. Tonko. So, then, Mr. Howell, how would legislation like the TRACE Act that I identified help address these gaps in data and reporting systems?

Mr. Howell. Well, it would provide a structure for agencies like the Department of Energy or the Department of Defense to actually start building out that database and informing industry in the requirements for the traceability of materials.

Mr. Tonko. Thank you. I appreciate that.

And, Ms. Hunter, do you agree that the TRACE Act would help increase transparency in global critical-mineral supply chains?

Ms. Hunter. Congressman, thank you for the question and your leadership on this issue.

Transparency and standards have to go hand-in-hand on this. Transparency without standards lacks legitimacy. Standards without transparency lacks consequence. If those are the goals we're searching for, then traceability is the mechanism.

We need to be able to strengthen existing policies like the Uyghur Forced Labor Prevention Act. We support, obviously, the TRACE Act's endeavors here.

And we also, especially with all of the 232 investigations in critical minerals, need to make sure that our Harmonized Tariff Schedules actually reflect the different types of minerals along these complicated processing lines that I've talked about in my testimony so we can be more concerted in making sure that we're encouraging manufacturers to, you know, buy domestic, buy allied, buy higher-standard sources of supply and play on a level playing field for these minerals.

Mr. Tonko. Thank you.

And the TRACE Act would create a digital identifier, or battery passport, that acts as a digital label for batteries, allowing end users to trace the origin of battery materials and components. These identifiers could help facilitate the transfer of information amongst stakeholders, including mining companies, original equipment manufacturers, recyclers, consumers, and regulators.

So, Mr. Howell, do you agree that a traceability system could strengthen U.S. national security and create economic resilience?

Mr. Howell. I do.

Mr. Tonko. And, Ms. Hunter, same question. Will a traceability and accountability system help strengthen our national security and improve the economic resilience of our critical-mineral supply chains?

Ms. Hunter. We need to shine a flashlight on these opaque supply chains. So anything we can do on traceability that can help us show where we're getting materials now and then move away from adversaries is a very helpful step forward.

Mr. Tonko. Thank you.

While digital battery identifiers are an emerging technology and concept, there are several private and public companies and consortia pursuing this important work, and I hope to see it continue.

So I thank all of our panelists for their attention to these important matters. And we have to do more to bridge the gap and ensure our Nation's economic resilience and security is there for the future.

So, with that, Mr. Chair, I yield back.

Mr. Palmer. I thank the gentleman for his questions.

The chair now recognizes the gentleman from Texas, Mr. Weber, for 5 minutes for his questions.

Mr. Weber. Thank you, Mr. Chairman.

Ms. Hunter, I'm going to come to you first.

And, Ms. Sweeney, you're not off the hook yet either, so I'll get to you second.

Of the 50 critical minerals identified in 2022, 49 are essential to the energy sector. You may or may not know about, in my district, 14, it has seven ports, more than any Member of Congress, lots of energy, three energy plants -- I could go on and on. Forty-nine of those are essential to the energy sector, and we rely on China for 26 of them. Do that math.

The U.S. once led the world in producing and refining rare-earth elements but ceded that position to China in the 1980s. Today, China controls roughly -- and I know I'm telling Noah about the flood here. Today, China controls roughly 90 percent of the global rare-earth processing and has already demonstrated a willingness to restrict exports and, thus, as one of y'all mentioned, affect the market. This leaves the U.S. dangerously exposed.

If China were to halt exports entirely -- think of that scenario -- where would we turn to secure the materials vital to our energy infrastructure and national security?

I'll go with you first, Ms. Hunter.

Ms. Hunter. So a total export ban would be devastating to the U.S. economy. We would need to rely on domestic sources if we can get them on line, and then have them be processed into the, you know, final products that need to be qualified by manufacturers.

We could turn to allies as much as possible, countries with which we share national security priorities, we have free trade agreements with.

And, also, working with producing countries at scale. You know, it takes a lot of time, everyone on this panel has noted, to build the mine, set up a processing facility, and connect it to downstream buyers. So you need to look to existing producers at scale, as well as allied countries with expertise in this sector, to be able to fill the gap.

Mr. Weber. Would it be a good policy -- the thought just occurs to me -- to actually have a buildup of those minerals, excess? Especially when you're talking about national security, our great,

you know, fighting men and women. Is there a policy that we can build up excess materials that we get from China? Or do we just buy them as we need? Do you know?

Ms. Hunter. We do have a National Defense Stockpile that sources these materials for defense purposes, and it has, obviously, a national security mandate, not an economic mandate, for the energy minerals you've talked about.

It's important to take into consideration things like shelf life, qualification, you know, the ability to distort the market by oversupplying it, when you're considering this. So I'm sure others have thoughts on this, but it's something that exists that we could certainly strengthen and consider, but it's not the end all, be all.

Mr. Weber. But shelf life could be dealt with if you rotated your products through. Agreed?

Ms. Hunter. As long as you're working with processors and downstream buyers of the materials so that we're making it in the manner and fashion that they need it to. But you need that midstream and downstream demand to be able to justify many of these economics.

Mr. Weber. And do you agree with that, Ms. Sweeney?

Ms. Sweeney. I do.

But, going back to the beginning of your question, I think that some of the other sources of minerals if China completely cut us off, you know, we could look to Japan and Korea for some of the rare-earth minerals, as long as they also weren't cut off from China -- which, China has threatened Japan numerous times in the past and actually did implement a brief export ban on rare-earths to Japan.

So we'd have to be looking at who else China is cutting off.

Mr. Weber. Well, although he didn't take the oath and didn't agree to testify, I'm going to go back to our great chairman, because I think I have heard the chairman say that there's nine rare-earth mines and China has eight of them? Is that right?

Mr. Palmer. There's not a single major refinery for rare-earth elements in the Western Hemisphere. There's only nine in the world. Eight are in China. The other one's in Malaysia. It's owned by Lynas, I believe, is the name of the Australian company.

Mr. Weber. Thank you, Mr. Chairman. Now do I get extra time?

Mr. Palmer. No.

Mr. Weber. This leaves the U.S. dangerously exposed, what we're talking about, and I think we all agree on that.

So, understanding there's a more thorough -- I understand that a more thorough mapping of the U.S. is ongoing. Are we in the United States going to have the natural resources to be able to produce those critical minerals if we could get the permitting quick, if we had to go to this quick? Is that a feasible scenario? I'm not talking about having stuff stored on a shelf.

Yes, ma'am, Ms. Sweeney. I see you champing at the bit.

Ms. Sweeney. I am champing at the bit.

We have vast mineral resources here. A lot of people do not understand how much we actually have -- about 6.2 trillion that are known. The U.S. Geological Survey says that more is going to be found than we've already discovered to date. And they have identified 800 sites for potential critical-mineral resources in the U.S.

Mr. Weber. Thank you.

With that, Mr. Chairman, I yield back.

Mr. Palmer. I might have been a little lax there if you had kept going, but I thank the gentleman --

Mr. Weber. All right.

Then I'm going to come to you, Mr. --

Mr. Palmer. No.

The chair now recognizes the gentlelady from Texas, Mrs. Fletcher, for 5 minutes for her questions.

Mrs. Fletcher. Oh. Well, thank --

Mr. Palmer. I'm sorry. I'm sorry.

Mrs. Fletcher. Okay.

Mr. Palmer. I got it out of order. My bad.

The chair now recognizes the gentlelady from New York, Ms. Ocasio-Cortez --

Ms. Ocasio-Cortez. No worries.

Mr. Palmer. -- for her questions.

Ms. Ocasio-Cortez. Thank you so much, Mr. Chairman. And thank you, as well, for the generous and kind words you had to share about Chairman Connolly -- or, Ranking Member Connolly. And he'll be very missed, and we will all miss his demeanor and his humor as well. So thank you.

I'm glad that we are here talking about our domestic critical-mineral supply chain today, because it is an area that I do believe could be ripe for bipartisan collaboration.

The truth is, whether it's for our vehicles, our smartphones, or our national security, our economy does rely on having access to these minerals. And because the cars and smartphones of tomorrow may rely on different mineral compositions than they do today, it is important that we in Congress continue to plan for resilient and reliable supply chains.

As the former ranking member on the House Natural Resources Energy and Mineral Resources Subcommittee, I can say that the urgency behind these issues is something I've been grappling with up close for years.

Now, we've heard a lot about how crucial tax credits and low-cost lending are to our domestic critical-mineral supply chain, all while Republicans today are slashing those very same programs in their reconciliation bill. In the Rules Committee, not too far away from here, we are marking up legislation that actually draws down a lot of the financial tools that both allow demand to be at the level necessary in these markets and also the lending that's required to allow these supply chains to flourish.

But, hearing the debate today, I would also like to focus on the solutions that I believe my colleagues on both sides of the aisle can agree on -- namely, grid storage and battery recycling.

Very often, we have this conversation about how we can increase production and how production can be aided, but we also very often don't look at the other end of this equation, which is that, once batteries are in the United States, once they have been produced, once these minerals have been deployed, when they reach the end of their life, they don't have to go to a landfill. We can retain crucial elements of batteries and keep them in and make them part of our supply chain through robust recycling.

Mr. Howell, in your testimony, you touch briefly on the notion of grid storage. Can you explain to people what grid storage is?

Mr. Howell. So grid storage is basically dispatching energy storage in timeliness -- in the time that you need it. So, whether it's renewable energies, whether it's conventional energies, storing that energy in some type of system -- and it can be a battery, but there's other types of grid storage as well -- and then dispatching that when you need it.

Ms. Ocasio-Cortez. And how would investing in grid storage help us to support more reliable and affordable electricity?

Mr. Howell. So the grid pretty much is built for peak demand each day, and so there's a great deal of power capability overnight. And so, by storing that energy overnight, you can actually reduce the number of power distribution that you need.

Ms. Ocasio-Cortez. Yes. I think a lot of times folks, understandably, don't quite understand how our grid works. And I think a lot of people would be surprised to learn that, once you generate the electricity necessary, it goes essentially right to its end use. And once that electricity is generated, it needs to be used pretty quickly. But storing it allows us to deploy it at times -- produce and then deploy it.

And one area -- when it comes to minerals, there's often talk about competition with China. And one area that China has solidified is the area of battery recycling. In fact, by the end of 2025, China is forecast to account for 78 to 89 percent of global battery recycling capacity.

Mr. Howell, why is developing domestic battery recycling important for our economic security as well as domestic supply chains?

Mr. Howell. It reduces our need for every critical material in the battery that we're talking about today. So our calculations when I was with the Department of Energy showed that, by the early 2030s, mid-2030s, that we could be actually recovering enough battery materials from recycled batteries to provide 30 to 40 percent of just about each of those critical minerals that we --

Ms. Ocasio-Cortez. Thirty to 40 percent?

Mr. Howell. Right, 30 to 40 percent. And then decades later, maybe 90 to 95 percent.

Ms. Ocasio-Cortez. I think it's -- I mean, this is something that I don't believe is being paid nearly enough attention to, where, yes, procurement of critical minerals is an important part of this

process, but we will be endlessly dependent on that and we will endlessly be scrambling on this if we don't also make investments in recycling.

Going back to the topic of grid storage, how would investing in grid storage incentivize the development of domestic battery recycling plants?

Mr. Howell. It just -- it basically provides that end-use market for investment in production capability of battery systems.

Ms. Ocasio-Cortez. Okay. Thank you very much.

I yield back.

Mr. Palmer. The gentlelady's time has expired.

I do appreciate the dialogue on recycling batteries. We're getting a substantial amount, if not most, of our antimony from recycled batteries.

The chair now recognizes the gentleman from Idaho, Mr. Fulcher, for 5 minutes for his questions.

Mr. Fulcher. Thank you, Mr. Chairman.

And I'm going to -- I'll give Ms. Sweeney a heads-up that I'm going to be asking her for a lessons-learned question here. But before I do, I just want to set up the reason I'm asking that question. It's a bit of history.

So, in Idaho, the Stibnite Mining District became active during World War I, 1914 to 1918, for extracting antimony and tungsten. These minerals were critical for munitions and weapons manufacturing.

During World War II, Stibnite became the largest domestic supplier of antimony and provided 90 percent of domestic antimony used in the U.S. war effort.

Following the war, demand for these minerals declined sharply, and today, in 2025, if you can believe it, the United States has no domestic antimony mine.

So Stibnite Gold Project, located in Idaho, aims to reestablish domestic antimony production. Once operational, it's projected to supply up to 35 percent of the antimony demand in the first 6 years, strengthening national security and reducing dependence on foreign sources.

Until recently, China accounted for over 50 to 60 percent of global antimony production and the Chinese Government banned exports of antimony, gallium, and germanium to the U.S. This intensified the urgency to restore domestic supply. And antimony trisulfide from Stibnite remains the only known domestic source capable of meeting the U.S. Department of Defense needs for small arms, munitions, and missiles.

So fast-forward to now. In April of 2025, just a month ago, Stibnite Gold Project, operated by Perpetua, was designated as a priority project by the Trump administration in response to the worsening critical-mineral crisis.

After entering the formal Federal permitting process in 2016, the project achieved a major milestone 2 days ago, just here, May 19, in Federal permitting when it received its final Federal authorization, Section 404 Clean Water Act permit from the U.S. Corps of Engineers.

Now, with all that history, I just want to ask you, Ms. Sweeney, from your vantage point, what are the lessons learned from this project? I know this is not the only one that has gone through similar types of processes. I'd just like to get your vantage point. What's the lesson learned we can use from this?

Ms. Sweeney. So I think there are several lessons to be learned here. And thank you for the question.

I think the first one is really highlighting the importance of byproduct material. So antimony is going to be a byproduct of the gold production, so if the gold production were not economic, that antimony would not be mined at all.

Secondly, the permitting process clearly took a very long time for Perpetua, when they really were actively going out there and cleaning up nearby old mine sailings and mine sites while they were trying to move forward, they were trying to do everything in the right way.

The third is the need for litigation reform, because this project is being litigated, and one of the issues that is being raised is one that could be addressed by Congress through the Mining Regulatory Clarity Act, which I know has received some bipartisan support right here in the House.

Mr. Fulcher. Thank you for that.

I think, if I understand it correctly, although the permit was initiated in 2016, it's been about an 18-year process, something in that range.

Ms. Sweeney. Absolutely. It's really -- and they've spent, you know, hundreds of millions of dollars just to get to the point of putting in their permit for approval.

Mr. Fulcher. Yeah.

Mr. Herrgott -- did I pronounce that correctly?

Mr. Herrgott. In my last year in the Trump administration as his permitting lead, I flew out there, toured the site with Governor Little. And it's important to keep in mind that the lost revenue, the cost, is going to prevent the tax revenue that will be generated from that project in the out years because of how much money it's losing on the front end.

But it's important to point out that mining is entirely supported by private capital, unlike the rest of the world. Had Perpetua, then Midas, not put the money at risk on a legacy site that is going to give us better environmental outcomes than if they had done nothing -- it's important to keep in

mind that that project, much like many of the other brownfield projects in the country, are going back to legacy mines from World War II, fixing them, restoring hydrological resources, and leaving it better than when they got there. And Perpetua doesn't get enough credit for that.

Mr. Fulcher. Thank you for that.

Mr. Chairman, I'm out of time. However, I am going to send Mr. Herrgott a followup question having to do with the role of land management agencies.

And I'd like to get your input on that as well.

[The information follows:]

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Mr. Fulcher. Mr. Chairman, I yield back.

Mr. Palmer. I thank the gentleman.

The chair now recognizes the gentlelady from Texas, Mrs. Fletcher, for 5 minutes for her questions.

Mrs. Fletcher. Well, thank you so much, Chairman Palmer. And thanks to you and Ranking Member Clarke for holding this hearing. I really am glad to work with both of you on the important issues that come before this subcommittee. And I agree with my colleague that this is an area with real potential for us to work together and find bipartisan agreement.

So I also want to thank all of our witnesses who are here today sharing your insights and helping us find where we can find that agreement and understand the landscape where we're having this conversation.

And it does seem to me, in the greater context of what's happening on the Hill this week and what we're doing, that we seem to be talking past each other about a lot of these issues.

We've already heard a little bit about it this morning, but I really think it bears repeating, that the Inflation Reduction Act and the Bipartisan Infrastructure Law that Congress passed was designed to make important investments to expand the domestic energy industry and to reduce our reliance on China and other foreign countries and to make sure that we were manufacturing at home, that we could be energy-independent, that we could expand and grow, and we could be supplying the rest of the world with clean-energy technologies as well as continuing our work in traditional energy sectors.

I represent the people of Houston, Texas. It's the energy capital of the world, and we certainly have been exporting our expertise and knowledge in all areas of energy and see a future where that is something we can and should continue to do.

But, you know, as we all know, it's just hugely important that we invest in developing full domestic supply chains for critical minerals and that that's so important, as the demand for these minerals is only going to continue to grow, and that it's important for our national security.

So, you know, we need to be on-shoring this process in a resilient and smart way, and we need to be talking to each other about how we do that. I think this hearing is helpful to that.

But I do have to note that, you know, just last week, every Republican on this committee voted to weaken our supply chain for critical minerals when we voted on this budget bill that's making its way through the House right now and that is currently being debated and considered in the Rules Committee.

You know, this budget bill rolls back hugely important investments that we made in the Inflation Reduction Act and in the Bipartisan Infrastructure Law to expand the domestic energy industry and to reduce our reliance on China and other foreign countries.

So we seem to be talking past each other, when we really should be thinking about all of these things holistically.

And I do want to note, Mr. Herrgott, I appreciated your testimony and observations on the importance of permitting reform. That is something that I support, that I have been working on on this committee. And I agree that Congress should be able to get it done; we should be able to get it done on this committee. And I hope that this committee will really be able to advance that effort in this Congress.

With that said and with the time we have left, I do think it's important to understand better how some of the efforts that we're seeing in the administration and some of the efforts to repeal these important investments, as well as this overall kind of atmosphere of uncertainty that I'm

certainly hearing about from my constituents, is affecting the energy and the critical-minerals industry.

And so, with that, I do want to turn to you, Mr. Howell -- because of your background both in the government and in the private sector, I think you've got a great perspective here -- to just share with us your thoughts on how you expect that companies in the United States that are part of the critical-mineral supply chain might react in response to repealing these IRA investments and tax credits and also how that might affect innovation and investment in more U.S. manufacturing.

Mr. Howell. Thank you for that question, Madam Congresswoman.

Consistency and predictability are so important to the private sector. And, you know, there's lots of tools that the Federal Government can employ to support critical minerals and processing in the United States. We talk a lot about tariffs, but production tax credits are so important; investment tax credits. Grant programs that support the buy-down of risk to the private sector are important, like the IIJA 40207 program that I mentioned. You know, when I was with the Department of Energy, for every $1 spent, $2 of private-sector investment was spent on those programs. And, of course, the Loan Program Office.

All of these -- you know, it's not one-size-fits-all for our industry colleagues in our BATT Coalition. They look for all of these levers. But, specifically, they do want some consistency, transparency; they do want predictability. And their shareholders, their financial backers want the same.

Mrs. Fletcher. Well, thank you so much.

I'm out of time, but I do have a couple more questions for you, so I will submit them for the record.

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Mrs. Fletcher. And I will yield back. Thank you.

Mr. Palmer. Thank you.

The chair now recognizes the gentleman from Ohio, Mr. Rulli, for 5 minutes for his questions.

Mr. Rulli. Thank you, Chairman.

The question would be for Ms. Sweeney and Mr. Hammond.

What factors does a company consider when they're thinking about what location in the United States of America that a processing or a refinery facility would be in?

Ms. Sweeney. So what States specifically?

Mr. Rulli. Well, so what would be the parameters or the factors when you're looking at different locations -- I mean, the continental United States is so vast in areas and resources and highways and stuff. What factors would play into that development?

Ms. Sweeney. So, certainly, ore grade would be a big factor. But we certainly -- there are companies that try to avoid Federal lands at all cost because the permitting process for Federal lands takes so much longer because there's more agencies involved and it almost always triggers NEPA, whereas if you're on State or private lands you can move your project forward that much more quickly.

Mr. Rulli. Mr. Hammond, do you have a comment?

Mr. Hammond. Sure. So, echoing what Katie said, with mining, you have to go where the minerals are, right? It sounds like common sense, but that's just the way it is. They're not coming to you; you have to go to them.

But, in particular, where you choose is also going to be a matter of where is the most favorable regulatory environment. And I agree with Katie as well; for many people, doing that on Federal land is going to be more problem than it's worth, so you're going to look for State or private.

Mr. Rulli. Mr. Hammond, in your written statement, you said that the company decided to skip out on development opportunities on Federal land when the development was right next to an existing project on State or private land.

I know, in the State of Ohio, a company from West Virginia, Infinity, was granted the right to drill on State lands, and there was a very compassionate, very conscious acknowledgment of the preservation of the environmental impact. I think anyone that's involved with minerals, we understand that Mother Earth needs to be protected at all costs.

And in this case in particular, I think they decided that there was already a private piece of property that was right next to it that was already doing drilling, so they decided to use that property to pay for an additional contract with people that they didn't have to because they already had the State contract.

So, in all due respect to the preservation of the environment, they chose to go on the private land and do horizontal drilling into the State land so there would be no surface impact on the State property. I thought this was a logical approach to the pathway forward for the development of minerals in America.

But we see that there's a big difference when you look at private land, State land, and Federal land. So I think you already stated the parameters of how it looks like when you're playing around with the Federal land, with the hiccups and the road bumps that we have in place for that. Do you see a pathway forward, either one of you, on how we get past these roadblocks?

Ms. Sweeney. More efficient permitting for Federal lands, I think, is the direction we need to go. That means more efficient NEPA reviews, environmental assessments, environmental impact statements.

You know, Congress has already told the agencies how long it should take, and I think that there have been some projects where those deadlines have been ignored or the companies have been told that they need to request an extension rather than trying to push those timelines.

Mr. Rulli. Excellent.

Mr. Hammond?

Ms. Sweeney. So we need -- yeah. We need people to implement what Congress told them to do.

Mr. Rulli. Thank you.

Mr. Hammond. Sure. And I think Katie's right; it comes down to permitting reform.

But one thing in particular that I was focusing on in my testimony is consecutive reviews as opposed to parallel or concurrent. And that's the example I was talking about with respect to uranium, where a project proponent was going through the process but then kept having new requirements dumped on them and extending out the time of the review.

So, I mean, what I think would be most effective is, if you tell a project proponent on day zero what exactly you're going to need to get all the way through a permitting process, that's the fair way to do it and that's the efficient way to do it.

Mr. Rulli. Thank you so much.

Chairman, I yield my time.

Mr. Palmer. I thank the gentleman.

The chair now recognizes the gentleman from Georgia, Mr. Allen, for 5 minutes for his questions.

Mr. Allen. Thank you, Mr. Chairman, for holding this important hearing.

I want to thank the witnesses for testifying today.

Obviously, we've highlighted the importance of critical minerals in our everyday life and why we should not be reliant on China for those critical materials. And it's a matter of national and economic security that the U.S. be a leader in this critical-mineral economy.

Ms. Sweeney, what is the status of critical-minerals mining in the U.S.? And how has the U.S. capacity changed over time, particularly in the last administration?

Ms. Sweeney. So, in 2022, we became our most import-reliant ever. So the trend lines have not been great. We used to be a leader of many of these supply chains, particularly directly after World War II and into the Cold War, but we have ceded that territory, mainly to China. And with that, we cede all the economic value that goes with the processing of those minerals.

Mr. Allen. Critical-minerals production and processing and refining are energy-intensive processes. If we were to build up domestic energy to help supply critical materials, are there any energy infrastructure components that we need to consider?

Mr. Herrgott. I think you keyed on a very important issue. In order to scale up on processing, you've got to power up. And the mining companies will pay for it if you give them the certainty and a reasonable pathway forward. You're absolutely correct. And it's not just on the energy; it's also on the rail and other infrastructure as well.

Mr. Allen. All right.

Would anybody else like to comment on that?

Ms. Sweeney. Yeah. I think we need to make sure that we're considering reliable, affordable base-load power.

Mr. Allen. Right. Exactly.

Ms. Hunter, when China began investing in the critical-mineral supply chain in the 1980s and 1990s, they went from a small share of the market and now they dominate the market. In 2023, the U.S. produced less than 20 percent of China's output.

How did China end up monopolizing the market like this?

Ms. Hunter. This is very concerted, long-term strategy that the CCP has been laying out and implementing for decades. The "Made in China 2025" plan really delineates clearly what they're trying to do, with increasing imports of feedstock materials, leveraging recycled inputs, and then dominating in the processing midstream so that they can lead on advanced technologies that rely on these technically converted materials.

They use illegal subsidies, direct and indirect. They use $57 billion in lending to foreign nations between 2020-2021 to access minerals abroad. And they use market manipulation tools that have been talked about already, but dictating prices and influencing them in their favor, consolidating their market control.

Mr. Allen. Uh-huh.

Well, we've watched this for some time, and I don't know, you know, why the alarm bells have not gone off before now. And, of course, we're dealing with -- again, Congress is saying, we've got to get this done, and then the agencies are like, well, you know, we have to delay it further. I mean, it's critical.

I mean, what lessons can we learn from this, from their monopolization of this, going forward? And how do we get off the dime here?

Ms. Hunter. I'm always reluctant to say we should take a page from the CCP's book, but their consistency on policy and then also monitoring the market dynamics and competitors to adjust as needed has been very successful in maintaining their control.

So, given the bipartisan nature of this issue, I think consistency and leveraging whatever we can to help American competitiveness but also supporting a diversification of the market will insulate us from the undue control that they exert over us today. I agree with your assessment; we cannot continue to operate complacently.

Mr. Allen. Well, I'm about out of time, but I've got a few more questions here that I'll submit for the record.

[The information follows:]

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Mr. Allen. Thank you again very much for your testimony. And, obviously, we've got to get off the dime here and get with it, and I think we'll figure that out. Thank you for your help.

I yield back.

Mr. Palmer. The gentleman yields.

The chair now recognizes the gentleman from Texas, Mr. Crenshaw, for 5 minutes for his questions.

Mr. Crenshaw. Thank you, Mr. Chairman.

And thank you to all our witnesses for being here.

Critical minerals are the backbone of a modern economy and a modern military, from semiconductors to advanced weapons systems. But, today, the U.S. imports between 50 percent and 82 percent of the critical minerals we need. So where are they coming from? It's been mentioned plenty of times here: They're coming from China.

And that's not good -- our national security, our national industrial base, our economic future dependent on supply chains we don't control from regimes we cannot trust.

And why? Well, mostly because our laws and regulations have made it virtually impossible to open up new mines in this country. And even when we do mine, we still have to ship the raw materials overseas just to get them refined because we have off-shored our processing capabilities.

I want to commend the Trump administration for taking some meaningful steps to address this with executive action. The executive order on critical minerals was a step in the right direction by cutting red type. But we need to codify this. This is Congress's responsibility, and we're behind.

You know, China didn't dominate this space by accident. It's a long game, decades of strategic investments in resource-rich nations across Africa, Asia, Latin America. In 2023, China was the top supplier for 29 out of the 50 critical minerals identified by the U.S. Geological Survey.

So that's what it looks like when a global adversary plays chess and we're still playing checkers. And I think it's time we act serious about this, start securing our supply chains, rebuilding our refining capacity, and cutting the red tape that's left us dependent and vulnerable.

I might add, I think this is becoming more of a bipartisan issue. I think everybody starts to realize that we need these critical minerals.

My first question, for Mr. Hammond: Can you explain how -- one of the problems we have is, there's a lot of radical environmental groups holding up critical-mineral mining and related infrastructure projects throughout the court system. I mean, it's not just critical mining; sometimes it's an off-ramp of a highway. How can we address that?

Mr. Hammond. So that's an incredible issue that you've brought up, and it's a huge problem. I spoke earlier about judicial reform.

What happens is, you can go through, as we've talked about earlier, a decades-long process to get a mine off the ground. It could be approved by an agency, but an unfriendly environmental group can drop in, file litigation, and tie that same project up for additional years or kill it altogether.

Capital only has -- you know, can wait around for only so long before it goes to another place. So that's just one way that they have in their toolbox to kill our progress on mining.

Mr. Crenshaw. Yeah. I'm not sure it would be in our jurisdiction for judicial review, but is there any particular bills that come to mind that seek to fix this problem that we should be aware of?

Mr. Hammond. So, over the years, I think, likely at Judiciary but also at Natural Resources, they've looked at what's called EAJA reform. Basically, under EAJA, you can file litigation, then go to the judge, and he can award you attorney's fees at the end. So we're basically, as a Federal Government, financing litigation against ourselves.

Mr. Crenshaw. Huh. That doesn't make sense.

What about unworkable environmental regulations that affect investment decisions for companies looking to develop domestic critical-mining production or mineral production?

Mr. Hammond. Sure. So, if you are a company that's looking to get involved in this business or expand operations in this country, it's fairly intimidating to look down the barrel of the regulations that we've set forth.

So I think the solution is giving consistent and early guidance to companies on what the Federal Government is going to require to get through a permitting process.

An investor recently told me that if you want to unleash hundreds or billions of dollars in mining in the near future, tell a company that you're going to do an EIS in a year, not 4 years, and then they'll get really interested, and money will start to flow.

Mr. Crenshaw. Yeah.

Just as a general question, I mean, do we have those resources here in the United States that are just untapped?

Mr. Hammond. Yes. I think we spoke about that a little sooner, but, yes, we have abundant critical minerals in this country. I think in the State of Utah alone we have 40 out of 50 critical minerals. So now look at California, Arizona, and so on and so on. We have the potential here.

Mr. Herrgott. Yeah. I think it's important to keep in mind that we can't have a piecemeal, segmented process. We need to have the mineral extraction, the processing, and the energy all at the same time, or else we're not doing what we actually need to do to create the integrated supply chain.

Mr. Crenshaw. Yeah.

Well, and that kind of gets to my next question, in my limited time, for Ms. Sweeney. You know, China, actively pursuing all these projects around the world; they have the full supply chain that you just mentioned.

Is there any example in the United States where we have a full supply chain for any critical mineral?

Ms. Sweeney. Beryllium comes to mind, mined in Utah, processed in various facilities that are all under Materion Natural Resources.

Mr. Crenshaw. So perhaps that case study requires more of our attention, how we did that, and maybe we can be replicated.

I'm out of time. I yield back. Thank you.

Mr. Palmer. The gentleman yields.

The chair now recognizes the gentlelady from Florida, Ms. Castor, for 5 minutes for her questions.

Ms. Castor. Well, thank you, Mr. Chairman.

I do believe that there is room for bipartisan cooperation and progress here. Over the past term in Congress, Congressman Rob Wittman and I led a Critical Minerals Working Group out of the Select Committee on Countering the Chinese Communist Party. Some of you were instrumental in helping us develop recommendations. So I highlight those to Energy and Commerce Committee. We actually hammered out a few pieces of legislation as well.

But I have to admit, I'm very frustrated by this. This hearing comes -- it's so inconsistent, because so much of the progress that we've made over the past two administrations is being sabotaged right now. A lot of it's coming in the billionaire boondoggle bill that will take away a lot of

the investments that we've made in shoring up our domestic critical-mineral supply chains and strategies.

Remember, we invested, also through the Bipartisan Infrastructure Law, at DOE for battery materials processing to help U.S. manufacturers expand what they're doing on processing and domestic supply.

The DOE Loan Program Office, you know, you're going after that in the billionaire boondoggle bill. That is the office, the Loan Program Office, that is helping the private sector make these important investments in domestic critical-mineral supply chains, from mining to processing to reshoring.

And then we know that you have the important pieces of the Inflation Reduction Act also in your sight.

So you're kind of taking the best tools we've developed over the past few years away from being able to strengthen our supply chains. And then you bring in this arbitrary tariff policy, too, where you're poking our partners and allies like Canada and Australia, imposing tariffs on them.

So, you know, I think my Republican colleagues in this administration have lost a strategic focus when it comes to how we build our own domestic supply chains here and incentivize the private sector to get involved.

One example -- Ms. Hunter, you testified in front of our Critical Minerals Working Group; thank you very much -- is the 30D clean vehicle tax credit that now is in the billionaire tax giveaway. They want to take that away. How will that impact our ability here in the U.S. to bolster our domestic critical-minerals supply chain, and how will that impact our national security?

Ms. Hunter. So I haven't seen any of the final versions of the reconciliation text, so please take this with my need to get back and review for further comments.

But a successful critical-minerals policy does leverage the U.S. demand sectors that we've talked about with policy handcuffs that encourage them to source domestically as much as possible and then also avoid sourcing from adversaries. That's extremely critical, and it must be well-sequenced with the market.

Similarly, we have to counteract cost disadvantages at home. The 45X tax credit does help attract investment here consistently over a long period of time. And without that, we risk the continued disinterest of investors and producers looking at the United States as an opportunity to process.

So I do think that we risk undermining the President's very clear agenda for unleashing American minerals and making sure we leverage domestic processing unintentionally by foregoing some of these important considerations in policy today.

Ms. Castor. Thank you.

Mr. Howell, you did very important work at Department of Energy's Manufacturing and Energy Supply Chains Office. Reporting at the end of 2024 suggested that DOE was considering, as well, how to do more to support U.S. critical-minerals projects, working with all sorts of grant recipients that were struggling due to Chinese dumping and price manipulation.

Where should we go from here? I mean, that's the jurisdiction of this committee, oversight of that office. What can we do to support those efforts? And I know the demand signal is important, but what do you recommend to the committee?

RPTR DEAN

EDTR ROSEN

[12:00 p.m.]

Mr. Howell. So thank you, Congresswoman.

Very important, you know, the IIJA Battery Manufacturing Grant Program, very important to the battery industry. It provides that high-risk, high-reward leveraging of the private sector funding to install first of a kind -- in many cases, first of a kind production capacity in the United States. And you know, it takes time to actually launch those programs and then see production materials coming from them. So a consistent support for that, a continuation of the execution of that program is going to be so important. And for those companies that may be struggling in the near term, the 30D tax credits, basically do provide that market pull for those materials that are going to be coming out of those facilities once they are actually in production.

Ms. Castor. Thank you very much. I yield back.

Mr. Palmer. The gentlelady yields.

The chair now recognizes the vice chairman of the full committee, the gentleman from Pennsylvania, Dr. Joyce, for 5 minutes for his questions.

Mr. Joyce. Thank you, Chairman Palmer and Ranking Member Clarke for holding this important hearing. And thank you for our witnesses for testifying.

Critical materials, specifically critical minerals, are required in many areas of manufacturing, ranging from products simple, like sunscreen, to light bulbs, to vital energy and to defense applications. A supply, a steady supply of critical minerals is essential to protect America's economic and our national security. Unfortunately for decades, we have ceded our advantage in the production and refining of these materials to other countries, specifically China.

Over the last few years, we've seen the consequences of this domestic inaction as China bans severely limits exports to the U.S. of critical minerals essential to our national security. Let's be clear, we cannot continue to allow our biggest adversary to control the supply chain for these materials. That's why President Trump has taken executive action, declaring a national energy emergency and aiming to increase domestic production and the refining of critical minerals.

However, executive action alone might not be enough to provide a stable environment to attract new investment in the critical mineral supply chain.

Mr. Hammond, in your written statement, you discussed projects that languish indefinitely due to politics, including a permit to conduct due diligence on a potential mine that took 3 years under the last administration, as opposed to the standard 3 months. Would you please elaborate on how the priorities of an administration can affect the implementation of the permitting process.

Mr. Hammond. Sure. Someone can say that critical minerals is important, but it's not a priority for the administration, you're not going to make my progress. In this case, like I said, a project stood still for 3 years for something that should have taken a matter of weeks. It was a project, a drill of sample holes from the back of a truck. So this took 3 years. And this is an exploration. This ain't a full-blown mine. It is just to see if we should build a mine there.

Now the rest of the story on that is even worse. They were ultimately sued and even that project is now held up.

Mr. Joyce. Incredibly unfortunate, but revealing information you have provided with us.

How can we ease companies' concerns over the instability in political environments to ensure that the full momentum of the Trump administration remains through future administrations, Mr. Hammond?

Mr. Hammond. Sure, I think this Congress needs to look, as we've said earlier, permitting reform -- I don't even like the term permitting reform because it is used so generically now. So more specifically, we have to look at narrowing the scope of NEPA and looking at exactly what we require of project applicants. If you want to do a project in this committee room, you'd want to study the committee room, right? You might even study the Rayburn building, because it will probably impact of the rest of the Rayburn building. But the way things stand right now in the mining community, you're not only going to be looking at this hearing room, the Rayburn building, you're probably also looking at the Dirksen Senate building over there as well to see what the impacts are. It doesn't make any sense. You have to narrow the focus of what project proponents are required to study.

Mr. Joyce. Recognizing it is a chilling effect that you are describing on instability, how that can effect domestic investments. This committee included a provision in the reconciliation bill to establishing a derisking compensation program at the Department of Energy. Under this program, applicants would be compensated for unrecoverable capital losses resulting from Federal actions that previously Federal permitting projects made unviable. How would a program, which we're including in this upcoming legislation, which includes critical mineral projects as eligible applicants, how would that provide certainty to businesses and spur the investment that is so necessary when it comes to critical mineral, Mr. Hammond?

Mr. Hammond. So I think a project proponent would look at that and see that the Federal Government is making a commitment. That would build confidence. And that's ultimately what you would need before you make any kind of investment decision and you're derisking that decision. So anything we can do to build confidence through a program like that, I think the President's also talked about something similar, that if a future administration comes along and yanks a project like in

the case of Keystone XL, there would be compensation involved to make a future administration think twice before they just yanked a project that has already had billions of dollars invested in it.

Mr. Joyce. Under President Trump and with cooperation from Energy and Commerce, this committee, we look to build that confidence. We must do more to capitalize on the positive progress that President Trump has achieved in such short time. And I look forward to working with stakeholders, as well as my colleagues on this committee, to take advantage of this finite opportunity. I thank you all for appearing here today.

Mr. Chairman, I yield back.

Mr. Palmer. The gentleman yields.

The chair now recognizes himself for 5 minutes for questions.

Ms. Hunter, you said something at the very beginning that caught my attention about China's strategic leveraging and the bottleneck that's been created. We've got access to rare earth elements here in the United States and critical minerals. We have the seventh most -- the most known reserves. So when you -- it's not a matter of having them, it's what we are able to do with them once we get them. Would you like to comment on that?

Ms. Hunter. We do have great progress, especially on the light rare earths domestically, that's something that's a bright spot. But until we can separate them, turn them into metal, things that are happening in the States that have been represented today, then ultimately, we can't use them in the permanent magnets, or robotics systems, defense applications or energy solutions that we want to. So it's separation, metallization are key.

Mr. Palmer. It's been mentioned that we could get rare earth elements from recycling products. I think we get about 18 percent of our antimony from recycled car batteries. We can recycle hard drives, computer equipment, there's waste that we can recycle. When I say that, I'm

talking about mine tailings and coal ash, things like that. Would that be sufficient to meet our needs particularly in regard to our national security?

Ms. Hunter. So defense demand for these materials is substantially smaller than commercial demands. So without having the numbers, and I can follow up with your staff to validate, we could make good progress using all forms of alternatives. Another way is to decrease demand for some commercial applications through, you know, alternative abundant source non rare earth magnets in certain applications, and definitely leveraging full value mining as much as we can.

Mr. Palmer. But that reduces the quality of the product?

Ms. Hunter. But so use it in specific applications, so not for defense applications so that we can then leverage the higher quality and qualified material for the defense applications in certain instances. So we have to, yes, and all of it.

Mr. Palmer. If you look at it in the context of economic security is run parallel with national security, I don't think we can supply our needs just through recycling. But I do think recycling is a viable solution.

Ms. Sweeney, when we talk about mining, right now, 95 percent of rare concentrates that we produced in the United States are being exported to China for processing. And one of the points I made to the Trump administration is that the day we permit the mine, we need to permit the processing and the smelting and refining. Comment on the importance of the collaborative effort to get all of this done almost simultaneously. And that doesn't mean if we start today, we'll have it tomorrow. I worked for two international engineering companies. I have a pretty good idea of how long it takes to build something.

Ms. Sweeney. No, it is really important to scale up the mining and the processing together. That has to be coordinated to really secure our supply chains. China has been able do just that in

their investments around the world and in their own country. And they get the value, the value add of the processing. And that's something we're missing out. And we import $171 billion worth of refined minerals last year alone.

Mr. Palmer. Well, that's something Mr. Herrgott mentioned in his written testimony that we're stalling over a trillion dollars in U.S. infrastructure investment. And there's that -- the extension of what it does for the economy when you have this, it is not just the miner, the processor or the smelter or the refiner. There are other industries that are involved in that. And it's not just Federal permitting, Mr. Herrgott, it's -- there are other State and local governments that that are involved.

Talk a little bit about how we need to address this, because I do think this is not only an economic security issue, it is a pressing national security issue.

Mr. Herrgott. It is absolutely unlike highway bills.

Mr. Palmer. Microphone, please.

Mr. Herrgott. Where there is a Federal interest, because it's entirely supported by the private sector, these backbone industries, the fact that had the neodymium that is in your microphone we give to China at $1, they sell it back to us at $500. And even as of this month, the Architect of the Capitol is going to ask for a waiver to buy more from China for our own hearing room.

Mr. Palmer. I just noticed something, so short on time. I have another question I want to ask you specifically. You mentioned China's aging processing refining capacity. I think that's an enormous opportunity for the United States, if we will act, to build these capacities ourselves. Could you comment on that?

Mr. Herrgott. Yeah. Very quickly. The Trump executive order is happening right at the same time that this window is opening up with China. It will have a 10-to-1 impact on any money that was

produced by the IRA, because that certainty is multiplied by the investment that is pouring into the United States. It then has a multiplier effect of State and local income and the induced labor. So this is the window to do it. They are retooling and refabricating, they are processing refinement, separating and metallurgic processes that they built 20 years ago to beat us the first time. They can't reach the purity levels to meet the AI, the semiconductor. And as I mentioned before, it's going to take them 5 or 6 years to do that, because they spent too much money developing dirty extraction processes in Mozambique and Indonesia and elsewhere. This is the window to do it.

Mr. Palmer. I thank the gentleman.

Just as a comment, I really do believe this is a bipartisan issue. And I think everybody on this subcommittee and the full committee takes this very seriously. So I look forward to working with my colleagues.

Seeing there's no further members wishing to ask questions, I would like to thank our witnesses again for being here again. I ask unanimous consent to insert into the record the document included on the staff hearing documents list.

Without objection, that will be the order.

Pursuant to committee rules, I remind members that they have 10 business days to submit additional questions for the record, and ask that the witnesses submit their response within 10 business days upon receipt of the questions.

Without objection, the subcommittee is adjourned.

[Whereupon, at 12:13 p.m., the subcommittee was adjourned.]