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PREDATORY PRICING: HOW THE CHINESE COMMUNIST PARTY MANIPULATES GLOBAL MINERAL PRICES TO MAINTAIN ITS DOMINANCE

Wednesday, November 19, 2025

House of Representatives,

Select Committee on the Strategic Competition between the

United States and the Chinese Communist Party,

Washington, D.C.

The committee met, pursuant to call, at 10:02 a.m., in Room 390, Cannon House Office Building, Hon. John Moolenaar [chairman of the committee] presiding.

Chairman Moolenaar. The select committee will come to order.

And I just want to say good morning and welcome, and it is great to see you all here today. Today we are meeting to discuss how the very elements that power our energy infrastructure, our manufacturing, and our defense industrial base are increasingly controlled by our greatest strategic rival, the Chinese Communist Party. Do we continue to buy Chinese minerals and increase our dependence on our greatest adversary, or do we and our allies begin to mine and produce these critical minerals ourselves?

When the Chinese government controls critical minerals, it then has the power to dictate what we say and what we do. This is because if we don't do what they want, they can turn off the flow of critical minerals and cripple our industry.

This is not a theoretical problem. The Chinese government has weaponized the rare earth supply chain against the United States. Last month, China imposed export restrictions on rare earths and other materials necessary for American industry. This didn't happen overnight. Over decades, the Chinese government took advantage of our inaction and built up this critical choke point.

In 1992, China's then leader, Deng Xiaoping, stated there was oil in the Middle East, there is rare earth in China.

Since that statement, China's dominance in rare earths has grown to the point where China will control 76 percent of rare earth element refining by 2030. That is according to an estimate by the international energy agencies. We are watching Xi Jinping wield the rare earth weapon Deng Xiaoping began developing decades ago.

Over the span of 30-plus years, China grabbed different parts of the critical minerals industry, developed a loaded gun, and pointed it directly at American industry. They strategically acquired an American magnet company, stripped out the American know-how,

and then shipped everything to China. It also bought up mining assets overseas, tanked global mineral prices, and killed American mining firms. These strategic moves by China threaten our Nation, our people, and our way of life.

Take the rare earth element samarium. It is crucial for military platforms, but almost the entire supply comes from China. Without it, we would be unable to make certain defense platforms. And that is only one element. There are many more that are critical to American manufacturing, national security, and our economy. Without them, our society would crumble.

Bringing mining value chains back to the United States will take time and require a concerted effort from Congress and industry. Without a permanent signal from Congress, businesses will not invest and China's advantage will grow. This year, the Trump administration has taken bold actions to start breaking our dependence on China. President Trump issued executive orders to unleash American energy and created the National Energy Dominance Council. He also strategically invested in U.S. companies, sending a strong signal to the market that the U.S. government will take on the CCP to prevent its long-term dominance of the critical mineral sector.

In South Korea in his meeting with Xi, President Trump brought the United States and our allies a crucial 1-year opportunity on rare earths and other critical minerals, the export of which the Chinese government unilaterally restricted in October.

The task now before Congress, the Executive Branch, private industry, and our many allies and partners around the world is to use this year and move quickly to disarm China's rare earths loaded gun before it can be fired again at the global economy. We need an all-hands-on-deck effort to maximize rare earths mining, processing, and manufacturing capabilities across the free world and end our mineral dependencies on China before it is too late.

Last week, the committee released an investigative report on China's price manipulation. Prices are a crucial part of this industry because it tells customers how much to buy and investors when to invest. When China controls the prices, investors cannot make smart decisions, and we will never have an American-centric mining industry.

Today, we will hear from three dynamic American companies about the work they are doing to bring back these supply chains, the challenges they are facing, and the threat China poses to this process. And I hope our investigation and this hearing today will spur Congress to act and take bold, decisive action to bolster American supply chains.

And with that, I now recognize Ranking Member Raja Krishnamoorthi for his opening statement. Raja?

[The statement of Chairman Moolenaar follows:]

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Mr. Krishnamoorthi. Thank you, Mr. Chair.

With the holidays upon us, I would like to play a familiar Charlie Brown clip that we may all see next week.

As you can see, just when Charlie is about to kick the ball, Lucy pulls it out from under him, as she always does. And that is exactly what is happening with the U.S. and China. The CCP is running the same old economic playbook in different industries, and we are falling for it again and again.

Here is the playbook. First, the CCP makes much more stuff than their domestic market requires. Second, they export the excess stuff below their cost. By doing this, they pull the rug out from under non-Chinese companies trying to compete. And then third, once the CCP has killed the competition, they weaponize their monopoly for coercive purposes.

Last week, this committee released a 52-page bipartisan investigation into how the CCP uses this playbook to dominate critical minerals and, by extension, our supply chains.

America once led the world in rare earth production. But those days are gone. China, as you can see, has surged production, flooding world markets. But the CCP didn't just produce more. They sold critical minerals at unfair prices, even below the cost of production. In doing so, they kill their competition and created a monopoly. If private companies colluded to kill off their competitors, their executives would be in these handcuffs. But because this massive price fixing conspiracy was orchestrated by the Chinese Communist Party, it is us, not them, that find ourselves in handcuffs.

This is a rock. Inside these types of rocks are rare earths which eventually get processed and made into these. These magnets. What you might not know is that there is a magnet in every motor. And motors aren't just in cars but in so many devices that we

depend on, including this blender.

Mr. Chairman, care for a smoothie? You can thank me and the magnets that help power this blender later.

America used to be the world-leading producer of magnets until 1998. But then we got played. Just take the story of Magnequench, a GM subsidiary which had a large magnet factory in Indiana. Chinese investors bought it and agreed to keep the Indiana factory open for 5 years. But 5 years and 1 day later -- I am not making that up -- 5 years and 1 day later, guess what happened? They shut down the magnet factory in Indiana and moved all production to China. Here is a picture of this Magnequench factory in China.

Now that China dominates rare earths and magnets, they have the power to not just unplug this blender but our entire economy.

But the keys to unlock our handcuffs are right here in this room. Niron produces the world's only permanent magnet that uses zero rare earths. MP Materials operates the only rare earth mine in America, Mountain Pass, California, which is pictured behind me. And Lithium Americas is developing the largest lithium deposit in the U.S. If these companies fail, the CCP wins. But if these companies succeed, we all win. And that includes the Chinese people themselves.

Some of us may recall the 2005 movie Blood Diamond about African diamonds mined using forced labor. Well, it turns out the CCP is mining many of its critical minerals using Uyghur forced labor.

So here is my proposal for a fictional sequel. It is called Blood Minerals, a movie about how China is exploiting its own people to mine critical minerals and then weaponize its monopoly against Americans. This is unacceptable. I think it is time for a Manhattan Project-like effort to end our rare earth dependency on China. But if we just increase production and not the tools and the talent, we won't solve the problem. We need to

mine, refine, and train the workers who can do it.

So let this investigation be our call to action. Right now, back home in Chicago, Mr. Chairman, my beloved Chicago Bears are 7 and 3 because they stopped just playing defense and they started playing offense. Chairman, let's be like the Bears and show the CCP how it is done.

Thank you, and I yield back.

[The statement of Krishnamoorthi follows:]

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Chairman Moolenaar. Thank you, ranking member. And we are proud of those Bears and their comebacks. And thank you for the smoothie as well.

If any other member wishes to submit a statement for the record, without objection, those statements will be added to the record.

Today, we have three witnesses who will help us understand the challenges in critical minerals. Mr. Evans is a chief executive officer of Lithium Americas Corporation. Mr. Sloustcher is the executive vice president of corporate affairs and chief communications officer at MP Materials. Mr. Rowntree is the chief executive officer at Niron Magnetics. I want to welcome all of the witnesses and thank you for being here this morning.

And, Mr. Evans, you are now recognized for your opening remarks.

STATEMENTS OF JONATHAN EVANS, CHIEF EXECUTIVE OFFICE, LITHIUM AMERICAS; MATTHEW SLOUSTCHER, EXECUTIVE VICE PRESIDENT OF CORPORATE AFFAIRS, MP MATERIALS; AND JONATHAN ROWNTREE, CHIEF EXECUTIVE OFFICER, NIRON MAGNETICS

STATEMENT OF JONATHAN EVANS

Mr. Evans. Thank you, Chairman Moolenaar, Ranking Member Krishnamoorthi, and members of the committee for having me here today. I appreciate your focus on highlighting the Chinese Communist Party's domination of market manipulation when it comes to critical minerals.

Lithium Americas is proud to be part of the conversation and the solution. My name is Jonathan Evans. I am the president and chief executive officer of Lithium Americas. We are developing the critical Thacker Pass Project, a fully integrated mining and processing operation located in Humboldt County in northern Nevada, which hosts the largest known measured lithium resource and reserve in the world. Thacker Pass is owned by a joint venture between Lithium Americas and General Motors. Our immediate focus is advancing phase 1 of the project towards production, targeting nominal design capacity of 40,000 tons per year of battery-grade lithium carbonate. Once online, phase 1 will increase U.S. lithium production tenfold and could meet roughly 20 percent of the U.S. processed lithium demand.

We are grateful for the U.S. Department of Energy's $2.23 billion loan which will help finance the construction and processing facilities at Thacker Pass. Together with our partners and administration, we are strengthening America's supply chain, creating high-quality jobs, and bolstering our long-term energy security and prosperity.

Onshoring large-scale U.S. lithium production is not optional. Lithium is a critical

element of national security, powering a vast array of defense technologies that sustain both resilient military operations and essential civilian infrastructure.

Beyond its strategic importance, lithium represents a powerful driver of economic growth and energy independence, creating American jobs, strengthening domestic industries, and bolstering long-term energy resilience.

Yet the United States remains dangerously dependent on foreign countries, including China, for this critical mineral. The U.S. currently produces less than 1 percent of the U.S. global -- of the global supply of lithium. This is not merely an economic vulnerability. It poses a direct threat to national security.

China, recognizing lithium's strategic value, has aggressively moved to dominate the global supply chain. From mining and refining to battery manufacturing, Chinese companies now control roughly 70 percent of the global lithium chemical processing capacity, using scale, State-backed subsidies, and predatory pricing to suppress competition and cement their market dominance. I will add they control over 80 percent of the battery production in the world.

While the U.S. played a critical role in developing the lithium-ion battery in the 1980s, China has since built the infrastructure and industrial base needed to dominate the global market and shows no intention of relinquishing that control. The CCP views dominance over critical minerals as a matter of geopolitical strategy. Through a coordinated, decades-long effort, China systematically secured control over key mineral supply chains to shape their global markets in their favor. China now leads the global lithium industry not only in mining and processing raw materials but also manufacturing critical components such as battery cathodes, electrolytes, and the batteries themselves. The CCP actively supports its domestic companies in acquiring foreign assets, offering them low- to no-interest loans and political backing to secure supply chains abroad. This pattern

is evident across regions including Africa, Australia, and Latin America.

To maintain its dominance, China has depressed global lithium prices to discourage investment by non-Chinese firms and to deter public or private capital from entering the market. Despite soaring demand and double-digit annual growth in lithium applications, this price manipulation has constrained the development of independent, transparent supply chains.

Efforts by Western entities to establish transparent, market-based price indexes have been undermined or displaced by Chinese-controlled platforms, such as the Shanghai Metals Market and the London Metals Exchange, both of which are now controlled by Chinese pricing data. As a result, global financial institutions rely on distorted benchmarks, limiting Western firms' ability to secure financing and expand non-Chinese lithium supply chains.

We cannot let the CCP continue to dominate critical minerals. We are thankful that President Trump, his administration, and Congress are focused on this and that the U.S. government is partnering with companies like Lithium America to ensure a strategic global supply chain.

Thacker Pass is the only fully permitted, under construction lithium production project on U.S. soil. This project will put the U.S. on a path to self-sufficiency. But it is just a start. But developing projects like Thacker Pass is highly risky. The upfront costs for exploration, permitting, appeals, and community engagement are high, and the timelines are long and uncertain, which deter private investment. Targeted Federal support, including streamlined and predictable permitting, timely resolution of appeals, and tools to de-risk early strategies can help ensure these projects are successful.

The U.S. cannot compete globally unless important national projects can be built in a timely manner. The formal permitting and subsequent appeals process for Thacker Pass

took nearly 5 years. We were actually considered fast tracked, given the process takes 7 to 10 years in the U.S., which is among the longest in the world. Such lengthy, unpredictable, and litigation-prone processes discourage private capital from investing domestically.

The Federal Government must also continue to explore financial support via low-cost loans and other structured financial instruments to help fund projects and attract private capital to co-invest.

We also need to establish programs and tools that deliver true price transparency. Public capital markets are dissuaded from financing and supporting non-China-backed supply chains given the global narrative has been highjacked by China and its pricing models.

The same pattern appears in other critical minerals, including rare earths. Despite "weak" headline prices, China continues to acquire overseas lithium and other key resources, often at discounted valuations, reinforcing its market power.

The U.S. can level the playing field by supporting a temporary minimum price tied to validated, market-based production costs. Today, China is running high-cost domestic capacity below cost, backstopped by subsidies, to flood this market and depress prices. In November, the CEO of CATL, which is the largest battery manufacturer in the world, admitted to this, telling Reuters that they were now stopping production at their mine as they achieved their goal of lowering lithium prices.

Thank you again for this opportunity to speak to you today. Securing America's lithium supply is about far more than resource development. It is about safeguarding the Nation's economic future, technological leadership, and national security.

Thank you, Chairman.

[The statement of Mr. Evans follows:]

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Chairman Moolenaar. Thank you very much.

Mr. Sloustcher, you may now proceed.

STATEMENT OF MATTHEW SLOUSTCHER

Mr. Sloustcher. Thank you. Mr. Chairman, ranking member, and members of the committee, thank you for the opportunity to appear.

Since its inception, the select committee has made the security of America's rare earth supply chain a top priority. We deeply appreciate your leadership and the chance to engage consistently on this critical issue.

I appear today on behalf of MP Materials, the largest and most commercially advanced rare earth producer in the United States. We own and operate Mountain Pass, America's only scaled rare earth mine and processing facility, which we rescued from bankruptcy in 2017. To restore the full supply chain, inclusive of mining, refining, magnet manufacturing and recycling, we built Independence, the first fully integrated magnet facility built in the United States in a generation in Fort Worth, Texas.

When MP was founded in 2017, America's supply chain was at a complete standstill. Today, after investing more than $1 billion of private capital into our U.S. operations, Mountain Pass is the world's second most productive rare earth mine and an indispensable cornerstone for a secure, end-to-end supply chain in the United States. We have restored refining capabilities, produced the first rare earth metal in decades, and are commissioning full-scale magnet production. Our workforce has grown from eight -- literally a team of eight -- to nearly 1,000 people across California, Texas, and Nevada.

In the coming years, MP Materials will invest another billion dollars to execute our

public-private partnership with the Pentagon and deliver for our foundational customers, including General Motors and Apple, creating over 1,000 incrementally manufacturing jobs and scaling U.S. capabilities across every link of that supply chain.

Your investigation makes incredibly clear what we have experienced directly at MP Materials. While China's industry is highly skilled and highly capable, its dominant position is both enabled and hardened by subsidies, price manipulation, and scale.

In the early years of our business, we produced mineral concentrated Mountain Pass that could only be sold into China, the sole market with the refining capacity to process it. We reinvested those profits to build U.S. refining capabilities at Mountain Pass. But as we prepared to launch, neodymium-praseodymium prices, the price of the key commodity, collapsed two levels below even China's lowest production cost. That predatory pricing destroyed incentives to invest, and it kept capital scarce.

China's sweeping export controls this year were a significant wake-up call. They disrupted supply chains, triggered factory shutdowns in the United States, and they underscored an important truth: Rare earths may be a small upstream industry worth just tens of billions of dollars, but they underpin trillions in downstream economic activity and millions of jobs. Physical AI, robotics, advanced semiconductors, electric vehicles, blenders, everything, these are the industries that are the backbone of the U.S. economy.

This vulnerability created the conditions for urgent, coordinated action. In July of this year, MP Materials and the Pentagon entered into a transformative public-private partnership. The agreements are anchored by three pillars closely aligned with this committee's recommendations, and they reflect the urgency that the chair and the ranking member have called for.

We are grateful for the bipartisan support expressed by the chairman and ranking member following this announcement. It is a clear signal of the importance of securing

and acting to restore America's rare earth supply chain.

First, the partnership is anchored by a price floor agreement that directly addresses the market-distorting practices identified by this investigation. Second, it includes a 10-year magnet offtake commitment, enabling us to invest well over another billion dollars in the coming years to take our U.S. production capacity towards a tenfold increase to 10,000 metric tons of magnets per year.

Finally, it includes a transformational capital investment that positions the Pentagon as MP's largest shareholder. Now, this feature ensures that taxpayers share in the upside opportunity created by the partnerships features, including mechanisms like the price floor. Based on our current market capitalization, this stake has already generated approximately 700 million in unrealized gains for taxpayers.

These measures demonstrate how public-private partnerships can deliver national security benefits while creating opportunities for taxpayers and the Federal Government to share in the upside rather than simply absorbing risk and losses.

The bipartisan recommendations contained in this committee's report offer a strong blueprint, and we endorse its direction. Where appropriate, the Federal Government should deploy tools that neutralize predatory pricing. Congress should level the playing field in trade. Congress should support workforce development initiatives. Congress should endeavor to reasonably compress permitting timelines for high-standard projects. The United States should pursue sectorial arrangements with trusted allies and partners. And finally, the United States should incentivize and reward American companies that source U.S.-produced critical minerals and derivative products.

It is worth noting the irony that China is not only the largest producer of rare earths but also the largest end market for both materials and magnets. They are the largest customer. Strong deliberate action by U.S. companies akin to the agreements we signed

with General Motors in 2022 and Apple earlier this year can help reverse decades of dependency.

Mr. Chairman, ranking member, members of the committee, America can achieve resiliency again. We share your view that doing so is no longer optional. Supply chains are the front lines of industrial and national security. Beijing's escalation this year was a wake-up call. In the near term, its actions were disruptive and costly. But they may ultimately prove to be a strategic miscalculation.

If we respond with sustained resolve, these actions can become a catalyst for rebuilding a secure, competitive supply chain that takes this issue off the table once and for all.

Thank you for your attention to this urgent issue, and I look forward to your questions.

[The statement of Mr. Sloustcher follows:]

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Chairman Moolenaar. Thank you.

Mr. Rowntree, the floor is now yours.

STATEMENT OF JONATHAN ROWNTREE

Mr. Rowntree. Chairman Moolenaar, Ranking Member Krishnamoorthi, and distinguished members of the committee, thank you for inviting me here today to testify.

My name is Jonathan Rowntree, and I serve as CEO of Niron Magnetics, a Minnesota-based company that manufactures the world's first commercially scaleable high-powered permanent magnets free of any rare earth elements. I am proud to report that we are already producing magnets for customers across multiple sectors at the ton scale. I am grateful for the strong bipartisan support in Congress and the administration for the strategic value of U.S.-manufactured magnets that eliminate foreign dependencies while strengthening domestic industrial capacity. Your attention to America's magnet supply chain is very much appreciated by virtually every industrialized sector but particularly our automotive consumer and defense customers and prospects.

Today, U.S. industries consume roughly 50,000 tons of permanent magnets annually, but analysts believe this figure will at least double by 2040. However, current U.S. manufacturing output is no more than 10,000 tons. This import dependency touches virtually every congressional district as robots, smart phones, medical devices, and advanced weapons system cannot function without these materials.

The Chinese government has strategically pursued its market position to gain leverage over critical supply chains that drive enormous global economic activity. Over the last 30 years, Chinese companies have exported low priced rare earth magnets to global

markets benefitting from State subsidies and nonmarket economic structures. China now controls 90 percent of global rare earth processing and magnet manufacturing, rising to over 98 percent for the most strategic heavy rare earths, and until only very recently, U.S. magnet production capacity collapsed.

But decades of anticompetitive pricing have also created domestic economic incentives to invest in breakthrough technologies that could disrupt legacy systems and thereby weakening monopolistic control of the rare earth supply chain.

The 2010 maritime trade dispute between China and Japan led American engineers to invent in 2011 a highly stable, permanent magnet without any rare earth inputs. And like legacy neodymium-based magnets, these iron nitride magnets are manufactured with secure, domestically abundant resources, iron and nitrogen, the most common element in our atmosphere.

Iron nitride is a new magnet for a new century that no foreign power can monopolize or restrict. We recognize that we are only one among many alternative solutions, including post-consumer recycling and tailings. As a matter of national security, every option should be explored and supported as the U.S. builds a more resilient domestic supply chain.

However, iron nitride technology transforms the magnet supply chain by enabling the manufacture of permanent magnets from iron and nitrogen, reducing the need for rare earth mining, chemical separation facilities, and complex metallurgical processing. A single vertically integrated facility transforms commodity iron ore and atmospheric nitrogen into finished magnets. This entire pipeline exists today within America's borders.

Third-party and customer testing confirms commercial viability in approximately two-thirds of permanent magnet applications. And institutional investors, including GM, Stellantis, and Samsung, have invested over 300 million in scaling the technology.

Iron nitride is not a science experiment. Niron broke ground last month at a facility that will begin producing up to 1,500 tons of permanent magnets in 2027, and we are actively evaluating sites for a second 10,000-ton per year facility. This domestic production capacity serves American automotive manufacturers, technology companies, defense contractors, and energy firms with reliable supply while creating hundreds of highly skilled manufacturing jobs.

The United States already has everything needed to build a secure, resilient, and diversified magnet supply chain. To accelerate this transition, I respectfully urge Congress and the administration to consider five concrete actions.

One. To establish Federal procurement preferences for domestically manufactured magnets.

Two. Extend Title III of the Defense Production Act and similar authorities to alternative magnet technologies alongside rare earth processing initiatives.

Three. Create tax incentives that level the playing field for domestic producers without picking winners among competing technologies.

Four. Direct Federal agencies to prioritize supply chain security over short-term cost savings.

And five. Provide import tariff exemptions for manufacturing equipment from allied trading partners.

American industry and innovation have produced proven solutions. Federal policy must now align with strategic necessity. Thank you.

[The statement of Mr. Rowntree follows:]

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Chairman Moolenaar. Thank you very much, all three of you. And now we would like to move to questions. And as we discussed, last week our committee released an investigative report highlighting that the U.S. mining and refining capacity is limited in part because China has manipulated critical mineral prices for decades.

And the Trump administration's recent deal with China essentially gives the United States and our allies about a year to become less reliant on Beijing for critical minerals. Given that mining and refining operations traditionally take years and years to bring online, it is our belief that we need to act quickly and act now.

And what I would like each of you to do -- and maybe start with Mr. Evans -- is to describe what are the current barriers that you are facing, financial and otherwise, and how can we work with you to speed up the process, given this timeline that we are working with?

Mr. Evans. Thank you, Mr. Chairman.

One of the largest barriers that we have to level the market is price transparency. I think you have heard the saying in rare earths, lithium is no different. They follow the same curves. And our industry pricing is just starting to go up after coming off a high about 2 or 3 years ago. Now it is about where it was about 5 years ago.

I know rare earths fairly well. As well, if you look at ones like dysprosium, you would think it would be an all-time high pricing given the situation the global economy is facing outside of China, and it is in the same situation.

Price discovery and fair pricing attracts private investment. The partnership between the U.S. government and private companies can actually be enhanced that way. The ball has gotten -- started to roll already with some of the programs and some of the assistance programs that both Lithium Americas and MP Materials now enjoy.

The other issue is around permitting. Just as it takes difficulty getting actually

financing done, permitting timelines in the U.S. are very, very long. If you are a private investor, you are going to look at market conditions and market growth potential, but you are also going to look at when am I going to get my money back. If permitting takes 10 years or 20 years -- and there are projects in this country -- I will point out in copper when the resolution -- I think that has been around 15 years and develops a very large copper deposit -- uncertainty around permitting timelines makes people go away. I have had pension funds and others ask us in our financing process, "Are you fully permitted?" When we weren't, they said, "Come back and tell me when you are." So those two legs are very, very important.

The third thing, I believe, is actually programs like are being discussed today and are actually already in place. Public-private partnership is important. The government needs to give a signal. And it is the government's job to actually determine really what is important for this country down the road.

This is no different than the Space Race. If you look at the problems that the Johnson administration had convincing the American public to keep funding the Space Race over the 60s, it was difficult. What we got out of that was we were leaders in the semiconductor industry. Things like Velcro and all other kinds of technology actually came out during that process. Semiconductors were a thousand dollars each in 1960. By 1970, they were a dollar. And it spurned huge economic growth and leadership globally that the U.S. enjoyed.

We are in the same situation here. All of the technologies we talked about are in everything in this room: your blender, your phone, your computer, our defense systems. We need to respond. But we need to be on a level playing field. The industry and the capital markets need to understand what true pricing and true cost is. That will attract financing. And the government definitely needs to give a signal. And we need to be able

to build things in this country again. The laws are such that we have to have -- and we do have -- the highest standards in the world, but they need to be somewhat predictable and reasonable for financial investors to support projects like this and actually get a return. Thank you.

Chairman Moolenaar. Thank you.

Mr. Sloustcher. Thank you, Mr. Chairman.

Six months ago, the thing that we were most worried about at MP Materials was the predatory pricing identified by your investigation, and it was an issue entirely outside of our control. That changed entirely with the inking of our transformative public-private partnership in July. This issue has effectively been taken off the table, and it is now incumbent on us to execute and act, and we take that responsibility incredibly seriously.

The truth is there is no silver bullet here. These issues are complex. All of the committee's recommendations in its bipartisan report are important to execute on. There isn't one individual thing that will solve this in and of itself.

But I would highlight that products do need markets. And I think what the Congress can do is both incentivize and aim to reward companies, large downstream end users, that give procurement preferences for U.S.-made critical minerals and derivative products. There is enormous aggregated buying power in the downstream of the American economy that can compel a lot of activity. And that can happen in the private sector.

And again, I would applaud the efforts of General Motors in 2022. We would not have a rare earth factory coming online in Fort Worth, Texas, were it not for them acting in 2022 well before this issue is in the mainstream. And I would also recognize Apple for doing so with us earlier this year following a 5-year relationship.

The second thing I would advise is that between our closest allies and trusted

partners, countries like South Korea and Japan, Australia, we can work together to have the right resources, the right processing capabilities, and the right markets to create real resiliency. Right now we need to bring supply online, but as that supply comes online, we have a lot more optionality, and I think our efforts abroad can be a lot more effective.

Mr. Rowntree. Thank you, Chairman.

At Niron, we have had incredible government support over the last decade to develop our technology. And every time we have received that support, we have been able to use that to capitalize private investment. And so it has been a great public-private partnership.

For us, the biggest impediment right now to scale is capital. And so here we need access to loans, grants, and other vehicles that would help us to capitalize our private capital to build our capabilities.

Niron's technology is based on iron and nitrogen, so we have an inherent cost advantage in terms of our input, raw materials. But magnet making, as you have seen, is a very competitive market. And so for us to be competitive, we need to be at scale. And so here, help and support to get to that 10,000-ton scale is critical. A 10,000-ton plan for us is a world scale magnet factory. That is the size of factories typically in China. And so at that scale, we were designed and developed our technology to compete head-on with China and really provide, you know, secure, reliable magnets to every industry that is critical and how it enables. Thank you.

Chairman Moolenaar. Thank you.

Now I would like to recognize Ranking Member Krishnamoorthi.

Mr. Krishnamoorthi. Thank you, Mr. Chair.

I want to show a picture from 1973 when OPEC, a group of oil-rich countries in the Middle East, imposed a total oil embargo on America. Millions of Americans were left with

empty tanks, and our economy nearly ground to a halt.

This lesson was not lost on the CCP. As the chairman mentioned, 20 years later, Deng Xiaoping, the former leader of China, said, quote, "There is oil in the Middle East. There is rare earth in China."

Mr. Rowntree, the CCP saw America's dependence on Middle Eastern oil as a model, and the CCP copied this model to control rare earths and induce American dependence, right?

Mr. Rowntree. Yes, it is similar, but it is a little bit different because they didn't embargo a country. They have a licensing system where individual customers have to apply an onerous process, sharing a lot of sensitive information to basically obtain a license that only lasts for 6 months to obtain those magnets, and so sharing a lot of sensitive, you know, American IP.

Mr. Krishnamoorthi. Let's take a look at one important rare earth compound where the CCP used their playbook. Let's look at a material called NdPr oxide, which is essential in permanent super-hard magnets. It costs Chinese producers roughly $50 per kilogram to make NdPr. 50 dollars. That is the key number to keep in mind.

When the U.S. tried to make our own NdPr, let's see what China did. They slashed the price from roughly $170 per kilogram, as you can see here, to about $49 per kilogram in 2024. And that is -- now, $49, Mr. Sloustcher, that is less than the $50 cost of production, right?

Mr. Sloustcher. Correct.

Mr. Krishnamoorthi. That is not a coincidence. This steep decline happened immediately after the CCP met to discuss the price of NdPr and then ordered Chinese producers to flood the market to drop the price.

But that is not the only mineral the CCP has targeted. Let's take a look at samarium

which powers heat-resistant magnets and guidance technology in our critical weapon systems, such as the F-35, the Tomahawk cruise missile, and the Stinger missile.

The CCP controls nearly all of the world's supply of samarium. And just like with NdPr, they have used that control to drop prices so America cannot compete.

Just look here. As the U.S. made attempts to create domestic sources through contracts with MP Materials and other companies, we see how the CCP brought the price down from around $20 per kilogram in 2022 to $9.91 per kilogram in August of this year.

But the key thing here is that the average cost to produce samarium even in China is $11 per kilogram. Again, the CCP is selling for less than their cost. The same is true for magnets.

Mr. Sloustcher, as you can see behind me, in 2020, we found this very interesting memo from the Chinese Commerce Ministry's Archives. Can you please put this up? This is a fascinating memo. It says, for magnet exports, for Chinese rare earth companies, quote, the transaction price tends to be low, even to the point of being lower than the production cost. The CCP is straight-up admitting that it is selling for less than the cost of production, right, Mr. Sloustcher?

Mr. Sloustcher. Yes. Our view is that magnets are being sold for less than the production cost and the cost of the raw material.

Mr. Krishnamoorthi. That is predatory pricing, as you mentioned.

The CCP playbook is clear: overproduce, underprice below the cost of production, thus attempting to kill its competitors, and then weaponize the monopoly.

So the question is what do we do about it? Mining and processing more rare earths in America is only one part of the solution, I respectfully submit. We also need alternatives that potentially bypass rare earths entirely.

Mr. Rowntree, your company produces the world's only high-performance rare

earth-free magnets, I actually have one right here, which is stronger than traditional rare earth magnets. If produced at scale, it appears that your magnets could be cheaper than normal magnets. So if the CCP cut off rare earth exports entirely to the U.S., potentially at scale, your magnets could keep our economy going.

They work by using an entirely new technology, which you described, which is called iron nitride, combining iron and nitrogen. Mr. Rowntree, this approach was developed by a University of Minnesota professor named Jian-Ping Wang, pictured behind me, correct?

Mr. Rowntree. Yes. That is correct.

Mr. Krishnamoorthi. And Dr. Wang isn't just your founder but he is also an immigrant from, you guessed it, China. He does his work at a federally funded lab in the U.S. If we want to break China's stranglehold on magnets, we need an all hands on deck approach. That means welcoming the best talent from around the world, including China. It also means funding research and uncuffing ourselves from our dependence on the CCP.

Thank you, and I yield back.

Chairman Moolenaar. Thank you.

Now I would like to recognize Representative Wittman. I want to also compliment you for your leadership on our critical minerals working group in the past session.

Mr. Wittman. Well, thank you, Mr. Chairman. We certainly did -- did a lot of discovery during that time, lots of critical information that had led us to today.

I want to ask our witnesses today, the issue is how do we catch up? You know? We are way behind the Chinese, especially with critical supply chains as it relates to not only rare earth but critical minerals.

How long do you think it will take the United States to build back supply chains to make sure they are fully capable of supplying all of our demands in the U.S. marketplace? And what role could efforts like price supports play in buttressing that market to make sure,

as Ranking Member Krishnamoorthi pointed out, the costs don't drop below the cost of production? We kind of create a price flow, we aggregate demand, we make sure that we are producing to the U.S. demand, and making sure that we produce with a guarantee that the floor never drops below the cost of production, which kind of acts as an insurance policy.

So I want to get your perspective on how you think that would play in helping the marketplace and making sure too the demand signal is and investments take place as they should in those areas?

Mr. Rowntree, begin with you, and then we will go to Mr. Sloustcher and Mr. Evans.

Mr. Rowntree. Yeah. I think for Niron, for us, we need the capital to help get to scale. At scale, we don't necessarily need the price support. What would help us is offtake agreements, right? And we are technology as quickly as possible to get to that 10,000 ton where we can really move the needle on magnet supply.

But we are going to need all of the above solutions to really accelerate out of this challenge. At Niron, we have 1,500 tons of capacity coming online starting in 2027, and we are working with the administration to see how quickly we can bring on a 10,000-ton factory. So I would need to try and have that coming online by sometime around 2029.

Mr. Wittman. That is great. Matt?

Mr. Sloustcher. Before I look forward, I want to look back because I think it is relevant here.

In 2017, the founder of our company, James Litinsky, he acquired Mountain Pass when it had eight people and was in care and maintenance under the supervision of a Federal judge. There was no accounting system, no corporate infrastructure. Literally eight people. The U.S. had zero mining, zero refining, and zero magnet manufacturing.

Today we have the second largest rare earth mine on earth right now in the State of

California. We have the largest rare earth refinery in the Western hemisphere, again, at Mountain Pass. We have metal production online and on a commercial basis, and we are getting ready to do full-scale magnet production.

And we have come that far in 8 years with very little air support for the core central issue identified by this committee, which is predatory pricing. So now that we have significant resolve and that issue, in our case, has been effectively taken off the table, we can move much more quickly.

The key missing link in the supply chain today is both increasing domestic magnet manufacturing capacity, which we are on base to get to 10,000 tons by 2028, and certain heavy rare earths which are essential in small quantities to the production of those magnets, which we are working on via our public-private partnership.

So I do think, now that this issue is well understood and there is a lot of resolve, you know, we are a lot further today than we were 3 years ago. And I think 3 years from now we will be even further.

Mr. Wittman. That is great. Thanks. Jonathan?

Mr. Evans. I think price discoveries is very important. At the end of the day, what is happening here should be an obvious solution for public capital to actually -- or private capital to actually finance this. But what we have seen here -- and lithium is no different than rare earths -- is that the economics and the science of economics is being bent to China's will. That has dissuaded private capital coming off the sidelines.

I think putting in, as we mentioned -- as the report actually recommends -- price discovery to help redefine and take over the narrative is going to help. On top of that, there are tools that we have in place already with tariffs and other anti-dumping things that can be triggered if the Chinese misbehave.

Finally, as mentioned here before, I think globally that will help spur more

development, including even investing in the United States. Allied governments like Korea and Japan have very little critical minerals or rare earths, so they have invested abroad for years with firms like JOGMEC, which is part of the Japanese government, which helps fund. And they typically take small investments.

But the biggest issue we have in the United States is the upfront cost. So building a facility like MP Materials has or has already built, like, we are actively in construction, and you are all welcome to join. We have 900 workers onsite right now. It is much more expensive than building it in China, for obvious reasons. We follow rules here and laws. We are investing money actually in the community. It is a holistic, it is a long-term generational asset.

But overcoming that, no different than semiconductors, you need clear market signals for private capital to either come off the sidelines and finance it on its own, or in concert with the government. Once the facilities are in place, these are world-class facilities. We can compete on a global basis when the -- when -- level playing field. But upfront, actually getting the capital costs actually finance has always been a challenge.

Mr. Wittman. Very good.

Thank you, Mr. Chairman. I yield back.

Chairman Moolenaar. Thank you.

Representative Stevens.

Ms. Stevens. Thank you, Mr. Chair.

I come from automotive land in metro Detroit, and as Mr. Sloustcher mentioned, a handful of years ago, some of our automotive leaders have directed a cause or a purpose for this Nation to really do some great work in critical minerals. But it wasn't just a handful of years ago that policymakers recognized that we have a problem with our dependency on China for critical minerals, critical materials that go into our supply chain.

And, in fact, when I was working in the administration of Barack Obama on a little thing called the U.S. Auto Rescue, the initiative that saved our large automotive companies from bankruptcy and rescued hundreds of thousands of jobs, we recognized that we were dependent on China for minerals and we were dependent on China for micro chips. In a bipartisan way, this Congress acted in the year 2022 on micro chips.

Now we have cause of purpose to act on minerals. I have drafted legislation that I encourage all of you to take a look at. It is called Unearth America's Future Act. This is a 100-page, comprehensive bill to direct loan guarantees, tax credits, create an R and D center of excellence to address what all three of you have been talking about, the access to capital considerations.

Now, Mr. Rowntree, you are the only synthetic material producer on the panel. Why is it important that synthetic critical materials be included in congressional policy, and what are the most important ways they need to be reflected in that policy?

Mr. Rowntree. Yeah. Alternative technologies are absolutely critical across a different range of applications. You know, it really then focuses on plays to the strengths of what the U.S. does best, which is to innovate. And so that is -- what we need to do is to innovate across these critical materials to find different solutions that will enable us to reduce and basically eliminate our dependence on, you know, foreign supplies so we can become basically a champion of that in our own economy.

Ms. Stevens. Yeah. And so Niron Magnetics is already scaling production, many synthetic materials are still in the demonstration phase. And as Congress seeks to act now, how do we make sure that the next generation of innovations like these are included in our policy discussions are our way forward?

Mr. Rowntree. Yeah. I think I mentioned earlier it has taken us 12 years to get to this point.

Ms. Stevens. Right.

Mr. Rowntree. Materials development is tough. It takes a long time. And so support is needed during R and D, but it is basically beyond that intro pilot. And so we were a successful recipient of several Department of Energy grants, including a $20 million grant that enable us to get from the gram to the ton scale, where we currently producing today.

What is needed now is support beyond that to help us scale. And so we need to make sure that we, you know, cross the valley of death there and scale the technology and get to a point here where, you know, we can be competitive here with China-based prices on these critical minerals.

Ms. Stevens. Yeah. And that is one thing that we remain hopeful in my drafted legislation, Unearth America's Future Act, that we can address some of those valley of death considerations.

And then, Mr. Sloustcher, you know, in terms of existing trade deals as they still somewhat exist, we have USMCA, which is under its review process. I am in Michigan, a manufacturing evangelist, and I recognize that there is potential opportunity for us to double down with our allies. You mentioned Texas. But what are other ways in which we could work with trusted trade partners on critical minerals and development?

Mr. Sloustcher. Well, I think when you look at our trusted allies, you have all the pieces you need. You have production capacity, processing capacity. You have large end markets. And those are the fundamental pieces you need to create resiliency in a supply chain and viability for producers.

Ms. Stevens. And is there an opportunity to box out China?

Mr. Sloustcher. We need supply online. That is the most urgent thing. But as we bring supply online, I think there is an opportunity to work with partners to create

resiliency and create the outcomes we want in terms of recognition of market economy costs, recognition of standards that are acceptable. And I think those are things we should be pursuing.

Ms. Stevens. Yeah. Thank you.

And I will just conclude by saying that the purpose and point of this hearing is to direct American strategy to give us leadership. Of course, I have pitched my own bill many times and will continue to talk about it until I am blue in the face. But I continue also to join for bipartisan solutions for a way forward for American manufacturing and our supply chain to beat China.

Thank you so much, Mr. Chair. And I yield back.

Chairman Moolenaar. Thank you.

Representative Nunn.

Mr. Nunn. Well, thank you, Chairman. Thank you to the panel for being here today.

Talking about rare earth minerals, you have laid out just a stark intel brief on what we face right now. We highlighted here that China now refines 85 to 90 percent of all accessible rare earth minerals. They control 90 percent of the magnet production, 80 percent of battery production, owns or influences the majority of foreign mines owned in the United States.

And it is not just the rare earth minerals. It is critical minerals. Things from the F-35 fire jet here in the United States that require 920 pounds per fighter of rare earth minerals just to be successful, all the way to the fertilizer that helps grow things in my home State of Iowa.

Now, whether you are a fighter pilot or a farmer, this is some grade A bullshit. We know that the Chinese have the ability to not only control it but cut it off when they want.

The challenge that I think going forward and my colleagues from the Midwest have pushed for is being able to identify critical elements that we can have here in the United States. First and foremost, we were successful with the Trump administration moving forward both potash and phosphates, components critical for input costs for fertilizer, not only being able to provide our own food supply but driving down costs for consumers.

We built our entire society around these fundamental resources, and when they are cut off, we don't have a backup plan.

Now, one of the things that we have known that has been successful is that we need a strategic reset. It was mentioned by both my Democratic and Republican colleagues here, an opportunity to go back to that World War II mentality of a whole of Nation approach. This year we are going to be looking at the Defense Production Act, ways that we can aggressively get after competing with Chinese State-backed subsidized ownership and competition in this space.

And while it was passed in the 1950s, it provides the United States the ability to have a strategic engagement against China in these critical areas. The facts are bleak. China is beating us in controlling the entire market, but nothing can outpace or outperform America's ingenuity or innovation in these space. I want to thank our panel for being here and get to the facts of this.

Now, Mr. Sloustcher, you and your company have worked with the administration in using the Defense Production Act to help prioritize a couple of things. Let me ask this: Has it helped your company move faster and be more competitive against China?

Mr. Sloustcher. Absolutely.

Mr. Nunn. Has it helped production outpace increase in a way that you wouldn't have been able to do on your own?

Mr. Sloustcher. Yes.

Mr. Nunn. With the new DPA coming up, do you believe that there is a requirement here for rare earths to be prioritized in America's national security strategy?

Mr. Sloustcher. Yes.

Mr. Nunn. And specifically, does the DPA allow you to compete with a State-backed Chinese entity that has both companies as well as government-owned entities?

Mr. Sloustcher. It is certainly a helpful tool in competing.

Mr. Nunn. Very good.

I would like to know a little bit here on how the U.S. measures could successful -- decouple with DPA from China and decrease our alliance on China's production of critical minerals. You have got some great examples.

Mr. Sloustcher. Sure.

You know, the Defense Production Act was first invoked for rare earth materials, I believe, in 2019 along with a series of presidential determinations. And it has been used in the past three administrations to help build up our domestic capabilities to refine rare earths. We received -- our first award was a very small one. We were a much different company in 2019 -- and then received two more awards in 2020.

And that resulted in a little bit of capital investment alongside a lot of private capital from us to bring the separation facility that is now online at Mountain Pass, the one I referenced in my remarks, is is now online.

But it wasn't just the capital, I think, at that time. It was relatively small. It was $10 million relative to a $200 million-plus investment. It was the signalling power. We were going public at that time. The U.S. government essentially said this is an important national security project. I think that does -- sort of, signalling power helps to unleash the private markets, the private capital markets, which are something I think we should all

endeavor to unleash. And so I do think DPA is incredibly important, and it has been throughout our history.

Mr. Nunn. Mr. Evans, I would like to speak with you a little bit as well. You have worked on the lithium side; such a critical component to our future going forward. Is there an ability for the United States to actually be able to compete against China? And what other tools would you recommend that we do to help secure lithium as a future for the U.S.?

Mr. Evans. Yes. We actually have a lot of lithium in this country in different forms, in the basement of, which we have done measurements and drilling, and it is the largest in the world. Also, in Arkansas and in Texas, the Smackover Formation also has lots of promise, and there is another project there that is going to be great.

Difficulty upfront for us, we have had to compete through market peaks and market troughs. And I want to recognize General Motors as well. They have invested nearly $1 billion in us early on, and they have stuck with us through this -- through this project, along with Orion Finance, which the government has chosen, actually, to work with the Department of War to invest offshore.

But it is very, very important that we attract -- we have a level playing field there. Pricing is key. The government, at the end of the day, shouldn't have to pay for all of this. But the signals and the data have been completely highjacked by the Chinese.

The London Metal Exchange, which this committee identified, is actually controlled by China, which is actually a surprise to me. All the pricing data for rare earths, for lithium, and for a lot of these other minerals that we have been talking about are defined by China. The financial community uses that for their investment decisions, and it dissuades investment.

The Chinese, on the other hand, have been shopping around, even in the face of

pricing declining in some cases in our industry 80 percent after a peak, and are still buying assets in Africa, into Latin America, all over the world because it is a long-term play. And the pricing and the market is controlled basically by the large -- by the government but also by collusion with CAT, BYT, and others to suppress any further development.

When pricing peaked in this industry at $80,000 a ton, I think the committee recognized that. There was two meetings when pricing went up. And you saw an immediate decline, which has lasted for 3 years. Now it is going up because they can't control it because the issue that China has, and we have as well, is power. So we are dealing with trying to expand our grid and adding more capacity.

Capacity takes time. Building nuclear power plants, twin cycle gas turbines. What is happening right now in the highest growth in this sector is actually putting in battery banks of 2 to 10 hours to be able to deal with peaks in communities.

Typically 6 to 10 p.m. at night, you come home, you have to have a peaker plant. The batteries are turned down for 2 to 10 hours, whatever that is needed, and recharged during the day. It is going to grow 50 percent. So we are competing now not only on consumer applications and defense applications, but the very core kitchen table issue we have is electricity in this country and power.

RPTR ZAMORA

EDTR HUMKE

[11:02 a.m.]

Mr. Nunn. Mr. Evans, you are absolutely right; this is a 40-year campaign. The Chinese are using economic warfare against us. Luckily, the resolve is right here in the United States. We have the opportunity to stand up and fight today.

Thank you, Mr. Chair. I yield the remainder of my time.

Chairman Moolenaar. Thank you.

Representative Brown.

Ms. Brown. Thank you, Mr. Chairman.

Today, we are talking about something that affects our economy, our national security, and the daily lives of families in Ohio's Eleventh District: The minerals and materials we need to build cars, batteries, medical equipment, and modern technology. Lithium, nickel, cobalt are all critical in innovation and supporting industrial growth in Ohio and across America.

Right now, China controls most of these minerals from start to finish. They mine them, process them, and manufacture the key components we depend on. And the evidence is clear: China uses this as a control to push other countries like the United States out of the market. They suddenly drive prices to levels no American company can match, or they cut off exports to gain leverage during disputes. When that happens, the impacts hit home quickly.

Factories in my district face unstable prices for the parts they need. Auto suppliers can't get the magnets required for electric motors. Steel and chemical producers see costs jump overnight; and workers, many of them union members who keep our districts strong, end up facing uncertainty they didn't create.

This is not the result of normal market competition. It is the result of a deliberate strategy by the Chinese Government to control the supply chains that power the 21st century economy. And if we don't respond, we risk becoming dependent on China for products that are central to everything, from clean energy to military readiness.

People in every corner of my district and all across the midwest know what it feels like when our industries lose out to unfair competition. We have lived that story before, and we cannot afford to relive it again. So my focus today is simple: To find out how we can protect American workers, strengthen our supply chain, and prevent China's manipulation.

I will start with you, Mr. Sloustcher. For decades, industries in my district have been hit hard by China's below-cost dumping. Now we are seeing China use these exact same tactics in critical minerals. What changes in trade enforcement would be most effective to protect workers and manufacturers in places like Cleveland from being undercut all over again?

Mr. Sloustcher. Thank you, ma'am. I have spent a lot of time in Ohio's auto towns, Marysville, Anna, in a prior life, so I know firsthand how those factories are really the engine of those small towns. There were shutdowns earlier this summer as a result -- in auto factories, in the United States, as a result of the rare-earth situation.

With regard to standards, I think we need to work with our allies and partners and agree on a set of standards that align with market economies, that align with our values. And I think if we do so -- and I think we are doing so with some of these agreements that we have been forming in the last few years -- I think that will help lift up the entire market over time. And I think it is a really important aspect of the whole conversation. Thank you.

Ms. Brown. Thank you.

Mr. Rowntree, China's dominance in magnet production gives it the ability to

influence global prices overnight. How have you seen China use that leverage to push competitors out of the market or pressure companies trying to build non-Chinese supply chains?

Mr. Rowntree. Yeah. I think when you look at the pressure the low prices put, it is really around getting the capital or attracting the capital that we have had to scale, you know, alternative technologies. At Niron, our source of iron are iron salts. It is a byproduct of steel making. Our source of nitrogen is ammonia, which is used heavily in the midwest for fertilizer manufacturing. And so we are bringing back, you know, magnet production but, you know, not playing the same game. We have changed the game. We have out innovated. And that is what our technology provides us with, while other technologies that are alternatives to these rare-earths.

And so it is critical for us as we are scaling here that we get to scale, so we can be fully competitive, right, because of the lower-cost inputs right from our steelmaking and from our fertilizer manufacturing that will enable us to provide a reliable, secure supply of magnets to the U.S. economy.

Ms. Brown. Thank you.

And, Mr. Evans, you have seen how long-term supply contracts, processing bottlenecks, and foreign ownership can shape whether a supply chain succeeds or fails. In your view, what are the biggest points of vulnerability in the U.S. lithium supply chain today that could slow down or even derail new domestic investments?

Mr. Evans. I guess, losing the opportunity we have right now, I think it has taken some time to actually act on some of the things that are being recognized here so we can level the playing field. I say this as a former proud Ohioan. Both my kids are Buckeyes. You can see most of the battery capacity in the U.S., between the southwest, with a huge chunk of it going in the midwest, because of the skilled workforce and excellent universities

that they have.

If we take our eye off the ball -- I think the chairman mentioned we have a year now -- and revert back, it is exactly what China wants us to do. We can set ourselves in a situation where not only we can actually develop the raw materials and the intermediates needed to actually fund these -- supply these facilities.

In our case, in the midwest, you have seen potential structures that have been set up where the Chinese want to set up facilities. But the issue with that is that they want the good stuff, the family jewels they want to ship in, in this case, cathodes, cathodes and anodes basically, which is the high-tech part of it, they wanted to ship in and basically just do assembly in the United States. That is not the way it works in China. I spent a large time of my career in and out of China, and you have to bring everything with you. We have the ability to actually build the entire supply chain here, but it all starts with leveling the playing field.

Ms. Brown. O-H.

Mr. Evans. I-O.

Ms. Brown. Thank you.

And with that, Mr. Chairman, I yield back.

Chairman Moolenaar. Thank you.

Representative Johnson.

Mr. Johnson. So the report released from this committee proved what we all have known to be true, which is the Chinese Communist Party has been engaging in textbook anticompetitive behavior, overproduction, dumping, government subsidy of those arenas, those industries. And, of course, we have seen it vary acutely in this critical minerals space. And as a free market Republican, I think about, well, okay, what can we do to try to push back on China's attempts to gain a near monopoly in the critical minerals arena.

The U.S. Government has taken an equities stake, Mr. Sloustcher, Mr. Evans, in your companies. That is not normally the first place my mind goes to what our government should do. I am open to the idea that, as the ranking member said, we need a Manhattan Project approach, and maybe unusual times call for unusual tactics. But what can you say that would make me feel a little better about the government owning a piece of your companies?

Mr. Sloustcher. Well, thank you, sir. This is a very important discussion to have. Free market capitalism is the engine of our economy, no doubt about it. But I think the reality is, today, we are not operating in a free market. China is both a monopoly and a non-market economy.

The most important features of our agreement -- and I do think, you know, with respect to some of the other agreements that have been discussed, ours is very, very unique -- the actual most transformative feature of that agreement is the price floor, which corrects this distortive, non-market behavior that this investigation found. And what the equity piece of the agreement allows U.S. taxpayers to do is to benefit from the upside, the upside gain that comes along with correcting for that issue. And as I said in my prepared testimony, it has already manifested in significant, unrealized gains for taxpayers.

So I think it is important when we think about this, where there is market intervention, it should not just be to absorb risk or take losses but to enable the U.S. Government and the taxpayer to participate in some of the upside. And I think that is what our agreement allows for.

Mr. Evans. In our case, in return for the government equities stake, we are being offered the lowest cost of capital in the world. As I mentioned here, one of the difficult parts for industries like ours is actually the upfront capital cost, because, again, we are not in a level playing field. I have to follow the laws here, and there is things that we need to do.

So the $2 billion of low-cost capital is actually a huge advantage, but it is also a signal to the industry that this is important and to also the private sector. That loan, which is under process, which took about 2 and a half years to go through the whole process, attracted General Motors, which put in a base investment and actually became a joint venture partner, and also attracted Orion, which, again, the U.S. Government is working with offshore to drill up mining projects with the Department of War. Those two partners likely would not have come if it wasn't a public-private partnership.

And as I echo Matt's comments as well: If we do well, the taxpayer should do well. So this really enabled our project to be successful, but it has also signaled to the industry this stuff is important, and now more private capital has actually been involved. So we are happy to be a good example for the rest of the industry but also --

Mr. Johnson. Well, the gentleman, listen, I get it. I mean, you are arguing in essence that this is a super special circumstance and that -- because hearing phrases like, oh, you know, if our company does well then the American taxpayer does well. I mean, that is just not how we view the private sector, right, that if that store owner or that dentist or that architect does well that there is an equities stake for government. I mean, generally, if they do well, they pay more taxes, right, so -- but that is the more traditional system.

I am open to the idea that this is a bold approach that is unique to your industry. Mr. Evans, you said you hope that this can be an example for within your industry. I just hope it is not an example across other industries. Because it does seem that, if we start to do this in other industries, we are going to go to a place that doesn't feel like free market capitalism.

But with the limited time I have got left, Mr. Evans, help me. You mentioned permitting reform briefly. It seems like a hugely important part of where we need to go if

we are actually going to become a global leader in critical minerals. Share some additional thoughts.

Mr. Evans. It is really for anything, sir. Any type of infrastructure we want to build in this country, I don't care if it is a cell phone tower, it is high-tension lines, we are under the same laws, NEPA laws and so forth. And, look, we need to have very strong regulations in this country, but a lot of the regulations were actually struck and cast when we were in a time where we were dealing with an opposite problem, which was overgrowth, overgrowth in housing, overgrown in industry and so forth.

It is a real barrier. The goal of all of this is to have private sector come forward, but they need certainty around things. Our process was 5 years. Look, and I was sued. I was permitted by the Trump administration, and 1 week later I was sued, and I was stuck in court for 4 and a half years. I went through a formal appeals process. I went through an appeal process on top of that in California and the Circuit Court.

And part of the issue behind that is the groups that actually do that, they know they are not going to win. They just want to slow you down and hopefully bankrupt you, because you are not going to get any financing. And this faces our whole country. And we are at a point now where we have to grow. We have to put in important infrastructure in place.

Can you imagine building the interstate highway system today in this country? You would never get done. So we have to fix this where there are limits around appeals and not depend on whatever judge that you get or somebody listening to two people out of 100 that are claiming the same thing over and over again.

The certainty, if it is not there -- look, I have talked to the Koreans and the Japanese and so forth. They would rather invest here than anywhere else in the world. Once you have an asset -- and the government is not going to take it away. We are the strongest

economy in the world. You will attract actually even more overseas investment here if there is certainty around the legal process. It is much too litigious and much too long.

Mr. Johnson. Thank you. I yield.

Chairman Moolenaar. Thank you.

Representative Stanton.

Mr. Stanton. Thank you very much, Mr. Chairman. Thank you for holding this important hearing.

Arizona is now the semiconductor hub of the United States of America. The CHIPS and Science Act has delivered more than $11 billion in Federal support to our State in this critical industry. Those investments are going to create 38,000 new jobs anchored by major expansions at Intel and the historic $165 billion commitment from TSMC. These facilities do not exist in isolation. They sit on top of a supply chain built from dozens of upstream inputs, including gallium, germanium, antimony, cobalt, and other critical minerals that make modern chips possible.

The Chinese Communist Party holds overwhelming control of that upstream supply chain. China refines the heavy majority's minerals, in some cases such as with rare-earth elements used in F-35s at Luke Air Force Base, and in the magnets that power electric vehicles their dominance is close to total. This translates to leverage.

Last December, Beijing restricted exports of gallium, germanium, and antimony in retaliation for U.S. export controls. These actions disrupted global markets overnight, and they were a reminder to every advanced manufacturer in the world that the PRC can tighten the spigot whenever it chooses.

This is not an abstract threat for my State of Arizona. Our semiconductor industry, our defense installations, our EV manufacturers, like Lucid Motors, all depend on reliable access to the minerals China has spent decades cornering and manipulating.

We are also watching a global race unfold in clean energy. China has reached a point where it installs more renewable power each year than the United States and Europe combined. It has nearly doubled the world in solar capacity. It produces close to a terawatt of renewable energy capacity annually. These are staggering numbers, and they give the PRC an enormous economic advantage.

This matters to Arizona, where solar already provides almost 14 percent of our electricity and where domestic manufacturing is expanding but still lacks a full supply chain. Energy markets and mineral markets are now inseparable from national security, this is Defense Industrial Bases and our clean energy deployment. We don't need to be provacative to recognize the risk. We need to be realistic and clear-eyed.

There is a practical path forward. We need to build regional supply chains, expand processing and refining outside of the PRC, and support upstream diversification with our allies. We need to deepen cooperation with our partner in the Americas and Indo-Pacific, and we need to make targeted investments that reflect the scale of the challenge. That is why I work to include the intent of my Semiconductor Supply Chain Security and Diversification Act in the House Foreign Affairs Committee's DFC reauthorization. Strengthening the DFC's authority to invest in semiconductor supply chains is a bipartisan step we can take right now.

The United States should never be in a position where a single foreign government can threaten our economic security or undercut the industries at the heart of Arizona's growth. The stakes are straightforward: If we want to maintain our leadership in semiconductors, protect our national security, and compete in a global clean energy economy, we can't afford to let the PRC's dominance harden into permanence.

Mr. Evans, we have companies in Arizona from semiconductors to EVs that need reliable lithium supply. What is the realistic timeframe for standing up non-PRC processing

capacity if the U.S. and its partner actually move with needed urgency?

Mr. Evans. Our project actually started in 2007. It has been 18 years. Our company took it over in 2016, so these are very lengthy processes. We are lucky that we are blessed with a lot of these critical minerals in the U.S. They are not going to get out of the ground though unless we have reform around permitting, unless we have government support for price transparency to attract private capital. And then in the case of a lot of things we have been talking about here, grants, other financial instruments that we can pull into place to help spur things along, it is going to take many years.

Luckily, though, we have our allies. There are deposits like this in other countries like -- in other like-minded countries like Canada and others that we can collaborate with. But we have got to start the ball rolling now. What you see here I think is a great start, but it is certainly -- we are not done.

Mr. Stanton. All right. Thank you very much.

Thank you, Mr. Chairman. This is a very important hearing. I yield back.

Chairman Moolenaar. Thank you.

Representative Dunn.

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

Mr. Rowntree, in my district, Florida State University recently established a Center for Rare-Earths, Critical Minerals, and Industrial Byproducts. Now, FSU is also the home to the National Magnet Lab. I am sure you are familiar with your business. These are very special, high-powered magnet labs. They exceed field strips of 30 tesla. Recently they have been researching and reporting on separating rare-earths critical minerals, not all of them but something like two dozen of them, from the tailings of all burned out phosphate mines. These are phosphate mines that haven't been used in decades, but the tailings are still there, and they just reprocess them with magnets instead of chemical processes and

smelting. Are you familiar with this process at all?

Mr. Rowntree. I am not familiar with that process, but I am familiar somewhat with the companies that are trying to do that. And, you know, this is another alternative, right, where we can take tailings and basically rework those to provide some of the mineral supplies that are critical here in the U.S.

Mr. Dunn. Are either of you two gentlemen familiar with that process? It is new research, and, I mean, I don't know much about it myself.

Mr. Sloustcher. I am, sir. In general, the principle of extracting critical minerals of various types, including rare-earth elements from industrial byproducts, it is interesting technology. The challenge is that, in many cases, the concentration of the rare-earths in these byproducts are in the hundreds of parts per million versus in the ground at Mountain Pass, the second largest rare-earth mine in the world. It is 60,000 to 80,000 parts per million. So the amount of stuff you need to move to get what you want to process becomes challenging, and that is where these advanced processing technologies, like that you referenced, come into play.

Mr. Dunn. Yeah.

Mr. Sloustcher. And I do think it is an interesting area where we should continue to --

Mr. Dunn. I was interested.

And maybe, Mr. Evans, you could answer this: Can you see how companies like yours might benefit from public-private partnerships with academia, institutions like FSU that do research in these areas?

Mr. Evans. Yes, sir. We are actually working with the University of Nevada, Reno. We work with the Colorado School of Mines with Penn State. It is an important bridge between business and academia, not only for a pipeline of new students or new employees

through students, which we do actively with internships, but also on new innovative ways, whether it be from recovery of tailings for phosphates, or in the case in our industry, optimizing process steps to lower the cost. At the end of the day, all these industries, you want to set up them up at their world class so they compete on a global market.

Mr. Dunn. When I read the research, I was interested. I thought it looked like it might be a way to quick jump start the process, because we know how difficult it is to mine in the United States of America.

Also, Mr. Evans, if our goal is to encourage domestic mining and refining, how should we structure our production tax credits or price supporting mechanisms so that we don't accidentally reengineer our dependence on China, and we actually do in real life incentivize domestic production?

Mr. Evans. 45X was helpful for projects like us. I know that sun sets in the 2030s, but that is certainly an incentive for companies here, just because our operating costs versus the Chinese are always going to be higher. I think price discovery helps in that we need to redefine the narrative and get the financial community also, as well, to look at those type of things for investment decisions.

Things like stockpiling our industry aren't as necessary, but things like antidumping or tariffs, if the Chinese continue to behave this way, are helpful tools in the meantime. I think the complexity around some of the products that we talk about here as well, like, today, a lot of the lithium that China has, it is all contained in the batteries. So you can tariff the batteries, which I believe we do, but as processing gets stood up in the U.S. -- look, we are mainly a chemical company, to be honest with you. If you look at the capital mostly chemical.

Mr. Dunn. I hope they follow your advice on this.

So for perhaps all of you, which industries in America are going to collapse first when

we run out of rare-earths and critical minerals? I mean, who is the canary in the coal mine?

Mr. Sloustcher. I think the auto industry is uniquely impacted. To build a car you need 7,000 to 10,000 individual parts. They all have to arrive on time. That any company can assemble an automobile, I think, is a feat of epic proportions. And I think there are so many components within a car --

Mr. Dunn. That is why I can't tell who is weakest.

Mr. Sloustcher. -- that contain magnets. It is enormously challenging, and so I think that is the canary in the coal mine.

Mr. Dunn. Thank you, gentlemen, so much for coming here.

And, Mr. Chairman, thank you.

Chairman Moolenaar. Thank you.

Representative Tokuda.

Ms. Tokuda. Thank you, Mr. Chair.

You know, I can't help but think as we sit here, I keep asking myself the question if we can ever even catch up, quite frankly. And so even looking forward, I know it is beyond the scope of this hearing and it is more of a rhetorical question, I ask myself: What is our Deng Xiaoping moment in 1992? We need to start thinking more like China, not just about how we catch up and reduce our reliance but actually understand what is that next industry, that next development for the future, and start now, so 20, 30 years later from now we are not asking ourself the question of how do we decouple from China.

And we need to make sure that everything we do, every development, every R&D project, every new technology is built not on the premise of relying on imports from other countries but what we can create and make on our own. So it is a very rhetorical question, but I think right now this committee also has to look forward into the future not just running

to catch up with what has become a world-dominant leader.

So I think, you know, when we take a look though at this reliance, it is about two paths: Slowing down imports and ramping up domestic alternatives that we had. You know, we need strong demand, quite frankly, from U.S. companies for domestic and allied critical minerals and especially rare-earths to support a strong industry that is not dependent on imports from China.

Would each of you agree that creating domestic demand by statutorily limiting critical mineral purchases from China could be a good way to ensure U.S. industry and investors have the stability that they need to invest, essentially buy U.S. or our allies first, China only if nothing else is available? Anyone want to start?

Mr. Rowntree. Yeah, I can start. I would like to just refer to your original comments here about looking forward. I think that is critical. We have got to look where we need to be 20 years from now, and that is why investment in alternatives we think is critical, right. It is not going to be the solution for everything.

It is all hands on deck right now. But our technology has a potential to have very significant higher performance levels, and, you know, be the magnet technology of choice for the 21st century not the 20th century, so critical to investing those alternatives and look at what do we need in the future for many of these emerging technologies.

We have seen the emergence of AI, and there is a lot of data senders that require a lot of magnets to move their air and liquid to cool those data centers. But there is a lot of emerging applications here in robotics, humanoid robots, even in drones it will become the kind of physical manifestation of AI, and those use a tremendous amount of magnets. And so it is critical for us to invest in those technologies to be able to make sure that we can support them and grow them here in the U.S.

Ms. Tokuda. Thank you.

Mr. Sloustcher. I will just say, yes, incentivizing and rewarding American companies for producing American-made products is a very good idea.

Mr. Evans. I would agree.

Ms. Tokuda. Thank you.

And, Mr. Rowntree, what is the timeline essentially that you think? If we were to actually invest the kind of capital that we are talking about to be able to look at alternatives to replace rare-earth minerals, what kind of capital are you talking about first of all? And how quickly could we actually get this done, if we did the moonshot, to have those alternative to Chinese rare-earth minerals?

Mr. Rowntree. Yeah. For magnets in particular and for our technology, you know, it is several billion dollars that is going to be required to get to move the needle. And so we are building a 1,500-ton facility right now, but we are also currently in State selection mode for a 10,000-ton facility, and that is going to cost us, you know, between $1 billion and $1.5 billion to build that facility.

So, you know, when you look at the investments required, we are just solving for magnets, but there are many other critical minerals that we need to solve for. But I will say, it takes time, right. It has taken us 12 years to get to a point where we are commercializing and scaling the technology because developing new technologies takes time.

Ms. Tokuda. So I guess you would also agree that, in addition to the capital that is required, we need to start investing in the R&D, the workforce, the innovation, all of these different things, as was mentioned earlier, recruiting the very best and brightest. That is going to help us come up with alternatives to what right now we are completely dependent on China to import in.

I have just a few seconds left, but would like to ask all of you, right now, we are

literally shipping all of our e-waste to China and to countries, quite frankly, that are easily manipulated by China so that they can extract a lot of these critical and rare-earth minerals in processes that are very environmentally unfriendly and then be able to take that back to China.

Should we ban exporting e-waste given we know that the technology and the value is there to recycle and harvest critical and rare-earth minerals from our electronic waste that we have right now? Is this a potential strategy? Are we literally shipping off critical and rare-earth minerals to China given that we really don't have a robust recycling mechanism here in the States?

Mr. Rowntree. Yeah, so I think this is one of the other alternatives that has to be looked at and explored and supported. There are companies out there trying to do that, but there are challenges with separating post-consumer recycled content to separate those minerals as you mentioned. So I think they need to be explored and part of the innovation support. You mentioned they need to be looked at as, you know, one other potential solution here to limit our dependence on China.

Ms. Tokuda. Would you not agree that, at least for now, minus the technology and the processing facilities, we are literally shipping out from this country critical and rare-earth minerals back to China or many of their, you know, their friends and allies that ultimately would allow them to recoup even more of the critical and rare-earth mineral market?

Mr. Rowntree. So I think there is definitely opportunity. There are companies out there that are already starting to look at this, but they need to be supported. I don't think they have all the solutions that are scaled yet, and that is, you know, again, back to the investment needed to be able to do that.

Mr. Evans. I would agree, and I would add that the pricing for that, like black mass, is actually controlled by China as well. So they control the demand, they control the

supply, and it makes it difficult for companies with innovative technologies in the U.S., even in Europe, to actually compete because the price floor is so low.

Ms. Tokuda. Okay. Thank you, Mr. Chairman.

Chairman Moolenaar. Thank you. Representative Hinson.

Mrs. Hinson. Thank you, Mr. Chairman.

Thank you to our witnesses for being here today. We have heard loud and clear that the CCP really uses their pressure tactics to take advantage of and manipulate certain markets using a lot of illicit means to do that, and they are able to dominate in those spaces because the playing field is not level.

We saw what happened during COVID. That really, I think, spotlighted our overreliance on China, specifically with the supply chain and what that did to affordability for American consumers, and that is really, I think, our focus going forward. As we talk about critical minerals and how many things they are in, we talk about how is that affordable for consumers.

And I think the CCP's goals, understanding those, and how geopolitical they are in nature and how they fit into the bigger strategy that we are playing here, I think it is apparent that we cannot let their dominance grow further, and that is why I think these conversations about how we level the playing field, what we do strategy wise going forward are so critical.

So what I want to talk about today is how they have been able to do this, how they have been able to aggressively undercut not only the prices but dominate foreign markets, and we have seen them use that playbook specifically in the auto industry.

Can you discuss, maybe, Mr. Sloustcher, the ways in which they are using their undue influence and unfair practices to dominate those critical mineral supply chains, to impose the leverage over industries like the automotive industry? We saw that play out

during COVID. We have seen a little recovery in the last few years. But how has that played out? And then using that as an example, specifically in the auto industry, how can we maintain affordability for American consumers as we are looking to maybe shift around our supply chains to not be so reliant on China?

Mr. Sloustcher. Yeah, it is a really important point. I think the interesting thing, certainly about like rare-earth magnetics, is relative to the total bill of materials on a car, it is a very insignificant portion. The cost, the bill of materials for the actual rare-earth magnets inside an automobile, it is very small. But you can't build the car if you don't have the magnets.

And think about what is happening today. In order to secure your magnet supply chain, and you are an automotive company, you are having to apply for a license and you hope it gets approved, and you hope it gets approved so you can keep your auto plant running. So think about the coercive effect of that. What do you think those companies have in the back of their minds when they are deciding where to build their next generation product right now, literally right now? Where should we site that plant?

This is why having this sort of control is coercive and kind of seeps into the decisions of all of really corporate America, and I think that is why this is such a critical issue. As I said in my prepared testimony, this industry is small. It is tens of billions of dollars, but there is trillions of economic activity downstream that it impacts, and that is why this issue just has to be taken off the table.

Mrs. Hinson. Yeah. Given their price manipulation and, of course, global dominance in critical mineral supply chain, do you think that Chinese auto manufacturers pose an existential threat to our American manufactures because they have the control over these mechanisms?

Mr. Sloustcher. Well, I think China has very astutely recognized that the rare-earth

industry, while it may be a small industry, is absolutely vital to competitiveness in the downstream industries of the future, not just cars. One thing we talk about a lot is physical AI, robotics. Robotics are probably going to be the largest industry the world has ever seen.

All of the motion in a robot is rare-earth magnet actuators. It is not just the products of today, but it is the products of tomorrow. And absolutely, if you control the upstream supply chain, you can become enormously competitive and dominant downstream. And just look at Europe's auto market today and how many Chinese cars are sold in Europe today, and I think it is no accident that that has happened.

Mrs. Hinson. So I think I know your answer probably to this next one then: Should we allow Chinese manufacturers to make their cars here? Should we allow them to develop batteries and advance that supply chain here in the United States?

Mr. Sloustcher. You know, I am going to keep my comments isolated to the rare-earth supply chain, but that does not sound like a great outcome to me, no.

Mrs. Hinson. Okay. Yeah, that is what I thought.

Okay. So we know that our allies -- you talk about Europe, they didn't do enough to thwart the threat of China's dominance in rare-earths. We filed a World Trade Organization complaint; only that caused China, of course, to shift their tactics in this space, so they have always found ways to kind of dodge and go around it. But thankfully, we are seeing so much some pushback there from the Trump administration.

We know China was also able to dominate the lithium industry specifically in a very short time span, and if it took, as we know, less than a decade to really control such a pivotal part of the supply chain, what would you say, Mr. Evans, is the next thing that we need to address now? Right. I think my colleague talked about looking ahead and playing the long game here. Is there anyplace that is kind of a blind spot for us outside of

lithium that we need to be looking at to get ahead of this?

Mr. Evans. I can't comment as much about minerals outside of lithium, but I think there are other examples that are on the critical minerals list that came out that are all important, and whether they be related to gallium and others that are used in small quantities, I don't know if all the those are getting the same attention, antimony. There is a variety. Again, it has to be a holistic look, even with our neighbors like Canada and other allied nations.

But I am hoping -- the question was asked earlier, when is the moment. I am hoping it is now, that we take a look at what kind of threats these have, what ability we have in this country to actually respond.

And the question you asked earlier, I think it is tough for the automotive manufacturers because you have to get a foot in both worlds. So I have no choice but to buy from the Chinese, and they have global markets. They can suffer the same consequences where the Chinese Government can actually -- literally just one company can't buy here anymore, you know, as punishment.

So until we put alternatives for them -- and I am not saying that we wholesale are completely independent, but alternatives that are either here or in allied countries, I think it is very difficult for the automotive manufacturers -- I think it is like 4 percent of our GDP -- to actually make clean decisions like that.

Mrs. Hinson. Thank you.

Mr. Chairman, I yield back.

Chairman Moolenaar. Thank you.

Representative Newhouse.

Mr. Newhouse. Thank you, Mr. Chairman. And thanks for having such a critical issue on critical mining for the subject today.

Gentlemen, thanks for being here and providing us important information.

I want to go back to the whole idea of Federal permitting. It is no secret that China, over the last number of decades, has built up their critical mineral industry, whereas we have not. And we face many challenges in this country in order to accomplish that and certainly permitting reform, as you talked about, Mr. Evans, in response to Mr. Johnson, is a big part of that.

So I am thinking that this is good timing to bring this issue up, because we are looking at, in Congress right now, addressing some of the critical aspects of building out infrastructure, and that could mean a long list of different things, and certainly mining is part of that. So I am glad we are talking about that today.

As we go through this debate and discussion, I want to hear from you guys, all of you, if you have some input here, what are some of the key factors that a should be addressed as we look at this permitting reform issue? What would be the most helpful in your space?

Mr. Evans. Putting at least aspirational but hopefully more firm time limits on things, formal permitting process. And I also think the same around the appeals process. Again, it rolls down to sometimes who the federal judge is, whether they are going to allow more folks into the actual -- the trial itself. It is very unpredictable.

There is a process that was put on by the first Trump administration for a year for a record of decision. It is difficult partly because, actually, it is difficult to find folks. We are in Nevada. Nevada is a great State to operate in. It is a mining State, and we are proud of that, but in other States, you perhaps don't have the same experience nor the amount of staff to actually get that done.

I think, as well, you can work with private companies where they can assist actually through the permitting process with actually more help for the Federal Government in

terms of outside resources that they need to actually move things forward. And I think once you get to a point where there is a decision and there is an appeal, there has to be some sort of time limit on that as well.

I could have been in construction a year and a half ago. You know, between the manipulation of price and driving it down, the lengthy process that we had to go through appeals where private capital is afraid to come off the sideline, and even, you know, legislation we have here, the loan can't even be closed and drawn until you have no more litigation, and it all compounds and slows things down. And, unfortunately, in cases with some companies, it bankrupts them.

Mr. Newhouse. Yeah. Which, like you said, is the goal in some of these people's parts.

Anybody else?

Mr. Sloustcher. I think in these industries permitting does need to move more quickly and ideally at the speed of national security. There are national security implications. I think due process is important. Not all projects, not all mines belong in all areas. That is a reality. I agree with my colleague here that if you put timestamps on a process to allow that to happen, I think that is hugely helpful.

But I just want to highlight too that there are very high standard projects. A lot of people are surprised when I tell them the second largest rare-earth mine in the world is in the State of California, that we operate in an incredibly environmentally responsible way. I am very proud of that. It is very possible, and I think that is what everyone should keep in mind. There is a way to do this responsibly, and we just have to figure out how do we get there more quickly.

Mr. Newhouse. Yeah. Good deal.

Mr. Rowntree?

Mr. Rowntree. Yeah, I think this is another benefit of alternative technologies. We are fortunate because we are using iron and nitrogen that the processes that we use enable us to make magnets more sustainably than rare-earth magnets, and so we are not quite as constrained on the permitting side. But at scale, yes, we will be -- you know, we will need help on permitting, right. And I think having a clear timeline, clear processes that allow certainty or more certainty, right, that things will move forward at the required speed to address this are going to be important.

Mr. Newhouse. Good. Good.

Just real quickly, in the few seconds I have left, you know, some of the minerals certainly are not -- that we need are not geographically located here in the U.S. We have to depend on other sources, obviously. So how can this country better leverage our relationships with our allies so that we are less dependent on places like China? Are there things, opportunities there perhaps that we can identify?

Mr. Rowntree. Maybe I will go first. I think it is -- every single country outside of China is facing for rare-earths the same licensing issues, right. It is not just the U.S. And so I think it is critical to basically come together and work together to try and solve and create these alternative supply chains and support critical industries, you know, around the world.

Mr. Newhouse. Very good.

Mr. Evans. Yes. I know we have had recent discussions with Australia, and Australia has actually suffered the same fate with their nickel industry, even their lithium industry, with dumping in China, because they send the raw materials in and then, unfortunately, there is not really processing capabilities in Australia.

Canada is another country that we have done a lot of work with. We can continue with our neighbors next door, and they are rich in some of the minerals that we don't have

here as well. Even the European Union, I don't know what their mining regime is like there as well, but in Scandinavia and other places they are actually -- it is good deposits of actually critical minerals as well.

But we are all suffering the same issue, and I think it is all coming to roost, all these countries that somewhat sold our soul and allowed China to take the narrative here. It is hollowing out the downstream industries, which are highly technological, those countries their growth because the Chinese can shut off this whenever they want to.

Mr. Newhouse. Yeah, right.

Mr. Sloustcher. I would just add, support U.S. companies projecting American capabilities abroad. I think we have to go abroad in some cases, and it should be American companies doing so.

Mr. Newhouse. Great. Appreciate it. Again, thank you guys for being here. And this is just the beginning of this conversation.

But thank you, Mr. Chairman.

Chairman Moolenaar. Thank you.

Representative Gimenez.

Mr. Gimenez. Thank you, Mr. Chairman.

And I have said this before, I mean, I look forward to the day when the Chinese can eat their lithium. And so I don't think that we are going to -- we are chasing tails here. I don't think we are ever going to get to the point that we are going to be able to compete with the Chinese on the rare-earth issue. I really don't.

I mean, I just think that, if we even try, they will take steps to make sure that it fails. They will embargo us or whatever, and then we will cry uncle and that is it. And so I am more focused on alternatives and investing in alternatives. Are there alternatives to these rare-earths today, or are there alternatives to these rare-earth materials and the uses for

them, you know, you can see on the horizon?

And then, Mr. Rowntree, if you can answer that, I would appreciate it.

Mr. Rowntree. Yeah, I think, you know, we developed our technology, you know, over 12 years to really solve the challenge with rare-earth magnets, right. So this is a new type of magnet technology. It is the first new magnetic material being commercialized in 30 years. There are other alternatives that need to be developed and invested in and found, but it is not necessarily going to be a quick solution to this.

Mr. Gimenez. Right.

Mr. Rowntree. But we have to invest now. We have to start that journey now. We are fortunate that the Department of Energy had the foresight to invest in Niron after the first rare-earth crisis back in 2010, 2011, where a Japanese impounded a Chinese fishing troller, and that was the first kind of signal how China would use rare-earths really as an economic trade weapon.

So, yes, we need to invest in these alternatives now, but it is not going to be quick and easy. We are fortunate that for Niron we are at a place where we have already gone from the ground to the ton scale, and now we are really scaling the technology. So we are at the right place at the right time with the right product to help solve for rare-earth magnets. But there are other alternatives that need to be developed and innovated and invested in.

Mr. Gimenez. Wouldn't it be cheaper just for us to go full blast on developing alternatives versus trying to catch the Chinese at this game? I think the Chinese are so far ahead that it is impossible for us to catch up.

Mr. Rowntree. We need all-of-the-above solutions to this right now, so we need to do all of the things that we have talked about here today and more, because this is a crisis for the U.S. supply but also for the West, and we have to work together to solve this as

quickly as possible.

Mr. Gimenez. Well, right now we need their rare-earths, but they also need our money, our cash. And, you know, I have been saying here we need to decouple from China, because I think we are funding the instrument of our demise every single day. Every dollar that we send over there is actually going to be used against us, and it is being used against us.

What percentage of the rare-earth market does the United States represent?

Mr. Sloustcher. We mine --

Mr. Gimenez. No, no, no. What percent of the -- in other words, the process end product, how much of it do we buy? What percentage of the world market do we buy, need here for our purposes?

Mr. Rowntree. I can answer that. So the U.S. uses around 50,000 tons per year of magnets. They don't buy that amount of magnets. They are embedded in a lot of the end devices, you know, cars, audio systems, pumps, motors, et cetera, that contain those magnets. Today it is around 300,000 tons of magnets globally, right. So it is around 15 to 20 percent of the world's rare-earth magnets are being supplied into the U.S. in a variety of different end-use applications.

Mr. Gimenez. How about the European Union, how much do they consume?

Mr. Rowntree. It is a little bit less, but it is that kind of same, 10,000. It is less, but it is quite significant.

Mr. Gimenez. So with us and the European Union, well over a third of the market?

Mr. Rowntree. Yes, I believe so.

Mr. Gimenez. So --

Mr. Rowntree. We can provide that information afterwards in writing, if that would be helpful.

Mr. Gimenez. Would the European Union be willing to -- one of the things that I looked at here in the testimony, or at least some of the things that I saw, was that, you know, maybe what we should do is establish kind of rolling tariffs on these materials so that a Chinese rare-earth materials would never -- we would never allow it to be cheaper than, say, a U.S.-made product. So, you know, it would bounce up and down. So if somehow the Chinese, you know, really wanted to suppress the price of a certain product, certain material, we would then raise the tariff on that material so that it would always be kind of like equal to the United States.

Do you think that the European Union would join us in this effort knowing that they are just as vulnerable as we are to Chinese manipulation?

Mr. Rowntree. Yeah, it is a great question. I can't comment on the Europe Union, but I will point out that even though we use 50,000 tons of it here in the U.S., we are not buying that many magnets. It is around 7,000 to 10,000. So the challenge there is that they are embedded in different end devices that we are purchasing. So how do you manage that, or how do you regulate that or provide tariffs on that? It is not an easy question to figure out.

Mr. Gimenez. Okay. My time has expired.

Thank you. I yield back.

Chairman Moolenaar. Thank you.

Representative Moran.

Mr. Moran. Thank you, Mr. Chairman.

And thank you for each of you being here today to discuss this very important issue about critical minerals and the CCP's economic warfare against the American people, warfare that, as each of you know, is strategic, it is long term, and as our report today aptly describes, it is predatory.

When our country prepares for war, when any country prepares for war, what does it do? It not only stockpiles resources that it needs, but it also seeks to consolidate the means of production to ensure that their populous and industries are the only ones who can consume those in a very critical time period. That is exactly what I think Xi Jinping and the Chinese Communist Party are doing.

The goal in my mind for them, and I think they have stated this clearly, is total control, total domination. We both, the United States and China, know how vital critical minerals are. We both understand how vital that role is in our economy across the world. I want to start talking about something specific to my region, northeast Texas. It is a region where lots of lithium is. And lithium, as many people know, but for those that are watching that don't know, it is a key critical mineral that the U.S. must invest in and that we will see dividends if we properly do.

East Texas is at the forefront of that, as all of you are aware of, with companies nearing production in that area. Northeast Texas has the highest-grade lithium brine resource in all of North America. It is part of that Smackover region, part of that Smackover Formation that spans from the western edge of Florida all the way to east Texas, and we are proud to be supporters of that development in northeast Texas as we can.

So let me start with you, Mr. Evans. What are the most significant barriers that your companies have faced when trying to start a new critical minerals project in the U.S.? You mentioned a few earlier. And then how can the Federal Government either get out of the way or give your industries the ability to progress quickly?

Mr. Evans. Yeah. Thank you, Congressman. And you are right, I know the Smackover Formation well. I am actually good friends with the CEO of Standard Lithium, so they are doing great work.

Look, permitting -- and it is a little different probably. Maybe in the region there

there is a lot of private land, but still State get involved and there will be Federal involvement. So to the extent that the red tape can be cut and the permitting processes actually can be predictable, I think that is really important.

Number two with that, again, is capital. The cost of these projects is very similar in terms of capital intensity. It is going to be more than the Chinese. It is going to be more than Africa and so forth. These are high-quality world-class resources, but getting over that capital hump, this is no different than to me semiconductors. Building a semiconductor fab in the United States is very expensive. However, once they get into operation, their operating costs are world class.

Both these deposits can operate actually in a global basis and actually become a new supply free from Chinese control. But getting over and getting financing is really key, but part of that is, as I mentioned before, is pricing transparency. Both of these projects could have moved much, much faster if the Chinese hadn't colluded over the last 3 years to depress lithium prices to an all-time low.

As I mentioned before, and actually the CEO of CATL actually even admitted there was an active effort amongst the Chinese Government and actually the largest battery suppliers to push the price of lithium actually well below their cost to run it. I know the deposit that they have in China, and they are claiming it is really great. If it was so great, they would have done it 10 years ago. It was an active effort actually to suppress projects like that and ours from actually growing.

Mr. Moran. Can you help the American people understand, or any of the three of you, how large the deposit of lithium would be across the United States in that Smackover Formation, what it could be transformationally to our economy and to our ability to become independent from and decouple from China?

Mr. Evans. Between Nevada and the Arkansas, Texas region, we have much better

reserves than the Chinese do. And actually if you combine them together, it is more than what you actually have in Bolivia. It is higher grade and better than what you have in Canada. It is actually better, more responsible mining techniques. We could be actually a world-class, sizable, global supplier of actually lithium-refined chemicals in this country and actually usurp the Chinese.

Mr. Moran. Mr. Sloustcher, I want to come to you with my last question. I am a member of the Ways and Means Committee. I have been clear that I think our tariff policy should be focused on key industries and imposed in a manner that is targeted and gets the results we need for those key industries.

In April of this year, the Trump administration launched a section 232 investigation into critical minerals and has closed deals with many of our trade partners, including Argentina, South Korea, Australia, Japan, Thailand, that address opening our markets to trade critical minerals. The most recent deal with China states that they must, quote, "effectively eliminate China's current and proposed export controls on rare-earth elements and other critical minerals," end quote. I think we have to stay very vigilant to ensure that that is actually upheld.

Mr. Sloustcher, here is my question: If China does not uphold their agreement to export minerals freely, what targeted tariffs would be beneficial for your industries that might change China's behavior, and how can they be structured to not inadvertently be a barrier to you?

Mr. Sloustcher. Thank you, sir. That is a really important 232 investigation. I think the administration is taking strong efforts to bring supply online, and as we do, I think we should look at trade measures to protect our domestic markets. I think the key thing here is we should not just look at the critical minerals themselves, but the derivative products such as magnets and then the imports of those derivative products in consumer

goods. We bring in a lot of magnets and consumer goods, and I think we need to contemplate that.

Mr. Moran. Thank you. My time is up. I yield back.

Chairman Moolenaar. Thank you.

And I also just want to thank all our witnesses. I appreciate you being here with us today. And questions for the record are due 1 week from today.

And without objection, the committee hearing is adjourned.

[Whereupon, at 11:55 a.m., the committee was adjourned.]