TRANSCRIPT

Online Event
“A U.S. Mineral Strategy for Global Energy Transition”

DATE
Thursday, May 20, 2023 at 9:00 a.m. ET

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Good morning, everyone. Welcome to CSIS. My name is Joseph Majkut. I’m the director of our Energy Security and Climate Change Program, and I’m really excited for today’s program.

So glad that we’re joined both by a small in-person audience as well as our friends and colleagues from online. If you’re online and you’re watching live, I believe there is a question box, and we should be able to get some of those questions to our panel later in the program.

I want to get right into it. The topic today is energy minerals, critical minerals, those things we need to secure a supply chain for our economic security, for our energy security, and for an energy transition which is responsive to climate change.

This is not an easy challenge to tackle. An IEA report came out last week and things are – the story is mixed. The prospective supply for copper, lithium, cobalt, and this basket of minerals is looking better than it did a couple years ago, probably enough to meet what countries have announced they’ll do to reduce emissions.

But we’re still behind the levels of investment necessary to get to net zero or stay on – or get on a net-zero pathway. At the same time, this supply chain, as we all now have come to realize, is quite concentrated. Bill Burns in a speech a couple weeks ago remarked that it’s hard for any country to accept living under a cartel of one, and the role of the Chinese in the processing and the extraction of many of these minerals is hard to deny.

When we think about the United States and our partners developing a strategy, we want to solve two problems: get enough money and investment in the system that there’s enough of this stuff for a global energy transition and diversify the supply chain with our own security in mind. Those are the two issues we’re going to be tackling today.

I want to introduce our kickoff speaker, Jose Fernandez, undersecretary for economic growth, energy, and the environment at the State Department. The undersecretary has previously served at the State Department, has a distinguished law career, but he’s leading the State Department’s efforts on developing these supply chains, going out into the world, and helping America play a positive role in establishing a critical mineral supply chain.
After he speaks, we’re going to have a few minutes to chat and then we will call up a panel of experts to talk about the white paper we released today. Hope you’ve all had a chance to take a look or will have in the next few days. This is an exciting new area of research for CSIS.

Undersecretary, we welcome your comments and thank you so much for being here, sir.

Jose W. Fernandez: Good morning, and thank you, Joe, for the – for giving me the opportunity to talk about the work that we’re doing in critical minerals at the State Department. This is something that we’ve been working on for about a year and I’m very, very excited about what we’ve been able to accomplish so far to build out diverse and sustainable supply chains that will support the clean energy transition, and we’re just getting started.

So, this is a work in progress and I really welcome the opportunity to have a conversation about it. In summary, what we’re trying to do is to take a collaborative approach towards mining and processing of minerals, an approach that’s based on partnerships, information sharing – and this is important – very high standards.

Let’s start with the basics. The global energy transition is ongoing but it’s also at risk. Within a decade shortages of critical minerals such as lithium, graphite, and copper will increase prices and slow the deployment of clean energy technologies.

As I see it, the minerals challenge is threefold. Number one, we need more production capacity of critical minerals and that needs to come online quickly. Secondly, many of these minerals are currently concentrated, as Joe just mentioned, in one single country, creating significant vulnerabilities, vulnerabilities that we’ve seen in other contexts – COVID-19 and take most recently the invasion of Ukraine and what Putin has been able to do to weaponize energy in Europe.

Thirdly – the third challenge we have is that current practices for critical minerals extraction, production, and waste management often have adverse environmental and social impacts and this creates often community opposition to mining projects.

These three challenges color our approach to a fourth task that we have to take on and that is that we must increase production. We have
to diversify every node of the supply chain and we have to improve the sustainability of the critical minerals lifecycle.

This fourth challenge requires strategic policy action both domestic and international and oftentimes this is not philosophy. This is getting concrete projects on the ground and getting them working.

Securing and diversifying global critical mineral supply chains are a top priority for the U.S. government and it’s also a major focus for my team at the State Department. This includes reducing our dependence on imported minerals, which requires us to scale up domestic minerals production rapidly. Last year the administration made the largest public investment in clean energy and domestic industrial capacity in history through the bipartisan infrastructure law, the CHIPS and Science Act, and the Inflation Reduction Act.

So, check out these numbers. Through the bipartisan infrastructure law more than $65 billion was invested in clean energy and over 40 percent of this amount has already been launched. Since the passage of the IRA private companies have announced investments of $137 billion in electric vehicle and battery manufacturing, and $84 billion in electric – in clean energy technologies, in addition, of course, to the 369 billion (dollars) that was invested through the – will be invested through the IRA itself.

In fact, there are estimates out there that project the total public and private investments as a direct result of the IRA will reach as much as $1.7 trillion. These are impressive numbers. And it’s not only about international projects. Streamlining our domestic mining sector permitting process will also facilitate further private-sector investments in production at home.

But the fact of the matter is that domestic production alone is not going to be enough. According to the IEA’s report – according to the IEA’s projections demand for critical minerals group grow by as much as three and a half times by 2030. Lithium alone is projected to – demand for lithium alone is projected to grow by as much as 42 times if we are going to reach our goals by 2050.

This is a global challenge. This is a global challenge that U.S. domestic production cannot solve alone. We have to find ways to rely on global supply chains to make the clean energy transition a reality and we
have to collaborate with partners to adapt those supply chains to the global clean energy transition.

We will only reach our goals – we will only stabilize and grow the global market by working with our like-minded partners and allies.

So, enter a project that we started over a year ago and that I’d like to talk about for a couple of minutes and that’s the Minerals Security Partnership – the MSP. The MSP now includes 14 partner countries who are large investors and off takers in addition to the European Union and, in fact, we welcome – we were pleased to welcome India a couple of weeks ago when Prime Minister Modi was here as the latest partner.

The aim of the MSP is to catalyze public- and private-sector investments in strategic critical minerals projects around the world to help build more transparent, more predictable, and more sustainable critical minerals supply chains.

And MSP activities are not limited to MSP partner countries. In fact, we’re actively right now considering projects across the globe.

The MSP has four main lines of effort. Number one, sharing information about potential projects. You’d be amazed but oftentimes we were hearing about projects around the world in the press and this is something that we’ve made an effort to really stop. We’ve got to get ahead of these projects so that our companies, so that our institutions can actually participate. That’s – so number one is sharing information.

Secondly, promoting investment and financing. Thirdly, elevating environmental, social, and governance standards, and fourth – and right now this is not talked about much but recycling. We are looking to expand recycling opportunities in critical minerals projects because right now recycling for electric vehicle battery components is not a major industry, but it’s projected to be 10 (percent) to 15 percent of electric vehicle batteries by – in 10 years will come from recycled components. So recycling is something we’re taking on right now.

The MSP provides a coordinating platform for foreign – U.S. foreign investment mechanisms such as the DFC, the Ex-Im Bank to finance and collectively de-risk projects alongside MSP agencies. We’re also looking for financial support from all MSP partners.
And the MSP is not only about sustainable extraction. It’s going to include something that all of the countries are looking for and that is to move up the value added chain. So, the MSP includes activities across this entire value chain like midstream processing and ultimately, as I said earlier, recycling capacity. These are all economic priorities for many of the producing countries, for many of the consuming countries, and it’s also a focus area of the Minerals Security Partnership.

One of the lines of effort that I mentioned was ESG. The MSP – the Minerals Security Partnership – elevates ESG standards across the global mineral sectors and we’ve actually – we realized that there was going to be a fair amount of cynicism about this, given the history of many mining projects.

So, what we’ve done is we’ve actually published. We published our principles for responsible critical minerals supply chains. We published them and I announced them at Mining Indaba earlier in the year, and the MSP projects right now will include and do include meaningful consultation and collaboration with local communities, which will promote positive economic contributions while maintaining strong standards.

In the last few months, we have – in the MSP we’ve looked at about 200 projects and we’ve narrowed that list down to about a dozen, 15 of them, through a process with all of the partners. Each of the partners takes on a project, others contribute, and we engaged in some preliminary due diligence to see if those are projects that we would like to pursue. We formed working groups and the support that we’re getting from partners right now it’s a working partnership and the support that we’re getting is – I think is one of the most – one of the things that I’m most pleased about in the MSP.

This is an effort that all of the partners are engaged in because they realize that there’s a need for this and the support that we are willing to provide on projects that we select include diplomatic engagement. Oftentimes many companies will tell us, we’ve got enough cash. We don’t need any financing from a U.S. agency. What we need is the U.S. government to become involved and to let governments know that this is an important project. So diplomatic engagement is something that we’re doing as well as financing through our export, development, and finance agencies and others.
But let me – let me stop right here for a second and just – and highlight something that I think – if you take anything away from my talk, it’s not about the MSP. I’m very pleased with what we’ve been able to achieve. I’m very excited about what we will be able to do in the MSP. But while MSP partners have a critical role to play, the achievement of each objective in our MSP – each of those four lines of effort that I mentioned – depends on engagement and close collaboration with key private-sector stakeholders. You know, governments simply cannot do this alone and that’s why we are exploring how to engage more systematically with businesses from MSP member countries to collaborate on MSP-supported projects and streamline critical minerals supply chains.

We have projects now. We have countries that have come to us and say – and said, we have X number of projects and we’ve got to get our private sector involved and that is the next challenge of the MSP.

Establishing a mechanism for this collaboration will also send a powerful signal that there’s a strong market demand for critical minerals that adhere to high ESG standards to support the clean energy transition.

So it’s been a little over a year since we launched the MSP. We had a productive year but, again, we’re just getting started. Our goal for this year is to continue building partnerships and finalize deals. This is not about philosophy. This is about getting deals done, to move that supply chain vulnerability that we have right now.

There are other things that we’re doing at the State Department on this subject. In addition to the MSP, we’re seeking targeted opportunities to help countries benefit from their mineral resources and to build environments that facilitate investment. One example that I can cite is the MOU that Secretary Blinken signed with the Democratic Republic of the Congo and Zambia in order to support the DRC’s and Zambia’s joint efforts to develop an EV value chain. Again, both of these countries are looking to go beyond extraction and to actually become involved in value added activities.

This MOU complements our goals to build robust, responsible critical mineral supply chains to support economic prosperity as well as our
climate objectives. It can also be a tool to resist corruption, generate local employment, and respect human rights and high labor standards.

We also have programs to assist foreign governments in geoscience and regulatory development and reforms in fiscal policy and much, much more. We share best practices, advance good governance principles, and ensure a level playing field for foreign investors to develop projects.

Right now, we have a group of Argentine regulators in the U.S. to engage in technical assistance, to engage in capacity-building projects, just so that we start building that ecosystem not only in the countries where we’re in now but in other countries that are looking to develop their lithium and critical mineral resources.

So, Joe, thanks for inviting me. I look forward to hearing about the takeaways from your latest report on building more diverse critical mineral supply chains and continuing these important conversations. And, again, we need your help. We need your help in getting the private sector involved. We can only do it if we get other partner countries in the mix as well as our private sector.

So many thanks. (Applause.)

Dr. Majkut:

The Under Secretary has another critical minerals event in town so we’ll be brief. But I do want to hear a little bit more of your perspective as you’ve gone about project selection and trying to make deals, you say. And one kind of topline question I have is it feels like we’re trying to solve for a lot, right? We need to develop these projects. We want countries where they’re resource rich want to be part of the value chain. We want higher environmental standards. We want higher transparency.

So, when you’re out there in the field, you know, what are you hearing from other countries about positive engagement with the U.S.? All right. I get the optimistic picture but what is kind of most important and how do you see either our diplomatic efforts or the role of our industry in helping meet country needs and opening up fair just access to new resources and new links in the supply chain?

Under Secretary Fernandez:

I think that – look, countries – many countries out there, many of the producing countries realize that they are facing a once in a generation
opportunity. You can’t talk about increasing lithium by 42 times and not realize that there’s an opportunity if you can take advantage of it.

At the same time, they – many of them have said to me, we just don’t see Western companies here, and we need to develop our resources and it’s great to be able to tell us that, you know, you will follow high standards. It’s great to be able to tell us that you are better than others. But you’ve got to walk the talk and you need alternatives.

So, the first thing we need to do is to – this is why the information sharing piece is so important. We can’t just go to a country and talk about forced labor, state-owned enterprises, unfair competition, low environmental standards unless we’re willing to provide an alternative.

And so, the first thing we are doing is stressing that and not just stressing it to the countries but also to our companies. We are not going to get involved in the race to the bottom and so the first thing we’re doing is saying we – there are alternatives.

The other reaction that I’m getting, and this has been – this actually has been a very pleasing conversation. Countries out there want high ESG principles. They don’t want to have to choose between economic growth and environmental degradation.

They don’t want to engage in a situation where communities are blocking transport as you’ve seen in some places in Latin America and you can’t develop good projects without community involvement, and having just come from Mongolia and having spent some time in Africa I think companies realize it’s part of their cost of doing business is they have to engage with communities.

So, my takeaway, to make a short story long –

Dr. Majkut: Please.

Under Secretary Fernandez: – is we need to provide alternatives. That’s hard. That’s sort of changing the way that our companies in many ways are risk averse, changing the ways that – the way that they operate. But at the same time, we’ve got to be able to convince countries that when we talk about high ESG principles, when we talk about a U.S. company having to observe and having to comply with the same ESG standards abroad
than it does at home, that they believe us and so that’s our task, going forward.

Dr. Majkut: And you mentioned – one of the things I heard in the talk was information sharing being really important, right, and in particular sort of, like, we hear about projects when they’re in the Wall Street Journal, not beforehand.

What does that mechanism look like in terms of the MSP and what more do you think needs to happen two, three, four years down the line where we just have a better sense of the playing field? So, this is – you know, this is where the State Department can add value. We’ve got embassies all over the world. We’ve got, you know, some very smart and dedicated people that are involved in this.

They have to have as a priority discussing with governments about opportunities, talking to potential investors, coming back to D.C. and saying to us and saying to the MSP there are these opportunities out there. We can take advantage of them. But you don’t have all day. You’ve got to move quickly. And that’s something where I think – and when I first started talking about this to a number of other countries, they had the same problem. Their own embassies weren’t – it was not a priority – a reporting priority for posts and for their posts.

And so, I think all of us – you know, it’s like studying for an exam, right? If you know what’s going to be on the exam you pay more attention to it, and there’s an emphasis now on critical minerals. We just had a chief of mission conference, an ambassadorial conference here where all of the chiefs of mission showed up and I spoke to the African – our own African ambassadors, Latin ambassadors, and as well as a number of Asian ambassadors and this is their priority.

I mean, are minerals, like, part of the briefing book now and –

Under Secretary Fernandez: It is part of the briefing book. It is part of the reporting.

Dr. Majkut: Right.

Under Secretary Fernandez: And I am very pleased. So, I think we’ve gotten that right. We’re also sharing it. We have, you know, working group meetings constantly with our MSP partners. The challenge now is to get our private
companies to take that leap. They've got other projects around the world, but this is both a – I think it’s a business opportunity as well as a strategic imperative.

And to get private companies to take the leap and does that – do we need coordination with what’s happening domestically as we set up these big battery factories? Do we need it from our big consumers, like, and are we just – you know, part of the role of the government here is just helping solve coordination problems?

Dr. Majkut:

So, part of the problem – problem – it’s just a –

Under Secretary Fernandez:

Challenge.

Dr. Majkut: – challenge. It’s just reality. You know, these projects take a long time to get off the ground, no pun intended, five to 10 years from the moment you decide you want to have a mining project to the time that you’ve been able to get the financing, you’ve been able to get the permits, you’ve been able to get the equipment there, and you’ve started drilling.

So, it takes a while. There’s a lot of capital. It’s not the kind of capital that if you don’t like the country and you don’t like the government you can just pick up and leave. So, it’s a big – it’s a big decision to take.

You know, it’s a thoughtful process and we’ve – oftentimes the companies also have alternatives. So, we’ve got to talk to them about the support that we are willing to provide in order to de-risk. That includes some of our development agencies. It includes some of our discussions with foreign governments. It includes the fact that if you’ve got, you know, 14 major economies that’s a powerful ally to have.

So, you know, that’s our current challenges.

Dr. Majkut: We’re just going to have to live with it, right, I think for the next couple of decades. Part of this – I mean, it seems like there – this is an issue of a lot of gravity but also seems like it can be kind of fun. I’ve been watching your Twitter stream. You were recently touring mines in Mongolia.

Are you considering a career shift after administration service, sir? You look good in a hardhat.
Under Secretary Fernandez: I appreciate that. My family didn’t think so. (Laughter.) Look, it’s – this is an opportunity for countries. So, Mongolia has some – you know, 25 percent of Mongolia’s GDP comes out of one mine, OK, as you know. They’ve got other resources. There’s a lot of community sensitivities about exploiting mining and mines in Mongolia. They’ve got water issues. They’ve got environmental issues.

So, this is a process, you know, and what does it mean? Well, it means we – what we’re doing with Mongolia and many other countries is we’re doing capacity building. We are doing some training. We are – some of it isn’t necessarily geological. It’s about you bring lawyers who have – you know, who have – it’s one of the few times that lawyers are welcomed, in my experience. (Laughter.)

It’s the – you bring lawyers who are familiar with negotiating concession agreements so that countries are not exploited when they negotiate these agreements. These are things we can do and you – in the same way that we’re trying to de-risk the investment for our private companies we also need to find ways to de-risk the investment for the producing countries.

They’ve got to get a good deal. They’ve got – at the end of the day, this has to benefit the communities. Otherwise, it doesn’t work. Otherwise, you have great projects that are – a bunch of projects out there in the world that simply aren’t getting done because there’s just too much community opposition. And so that’s – it’s a mutual de-risking and I –

Dr. Majkut: And if we succeed in that project is that a point of competitiveness for us, you know, when we kind of think about partnerships through the MSP or –

Under Secretary Fernandez: Well, it’s a point – it’s basically –

Dr. Majkut: – is it all consolation?

Under Secretary Fernandez: Is it all?

Dr. Majkut: Is it all – like, is it all – like, do we have to argue – do we have to give less terms? Do we have to make sacrifices or do we – does kind of
improve creating a high road supply chain become a point of
competition for us?

Under Secretary Fernandez: I think it is a competitive advantage. There are a couple of things that we've realized early on. Number one is we are not going to win – even if we wanted to, we're not going to win a race to the bottom. There's always others who are willing to skirt environmental requirements. They're willing to pollute more than our companies.

Our companies won't do it not necessarily because they're angels but because their stockholders won't agree to it because our government will go after them on FCPA grounds if they engage in corruption.

We've got laws that prevent them from engaging in the race to the bottom, plus they – I'm proud to say the ones that I talk to just don't want to do that. So, we have to change the terms of the debate and countries – the countries that I've spoken to are excited by that.

I've gotten – a couple of them recently have come back to me and said, we've got this opportunity in our country. We could throw it out for auction. We'd like to see if your company – if you have any good companies that would be interested in discussing it with us first. Why? They believe – they believe in the – in our calling card, which is high ESG principles. That's a bet.

Dr. Majkut: Right.

Under Secretary Fernandez: That's a bet, and the reality is that higher ESG principles are costly, will make your product more expensive, and then the question will be are customers willing to pay that – are consumers willing to pay that. But we're making the bet that they will be and that if they do our companies will have a level playing field, will have a fair chance. And, you know, something I've learned in my career, you know, give me our private sector, give me a level playing field, and I'll take my chances.

Dr. Majkut: Got it. Before I let you go what should we watch for next? What’s the next thing that we should keep an eye out for? I mean, this is now in Washington and around the government. This is an issue that our political leadership is more attuned to. What do we need to keep an eye on?

Under Secretary Fernandez: I think you should watch for – we've got to ratchet up our engagement with companies in the private sector. We've done a good job of getting
the partners together. It’s really a very productive working relationship.

We’ve got countries such as India that are knocking on the door who would like to join and they did, and Italy before them. We need to have a more organized way of getting the information to our private companies and just getting them to play.

Dr. Majkut: Right. Great.

Under Secretary Fernandez: That’s our next challenge.

Dr. Majkut: I mean, I’m grateful to hear that. That’s one of the themes of our white paper. That’s one of the things we’re going to talk about in our next panel.

But before we do that, if you would give your warm thanks to Secretary – Undersecretary Fernandez for joining us today and for his hard work around the world. (Applause.) Thank you, sir.

Under Secretary Fernandez: Thank you.

Dr. Majkut: And, hopefully, next year we’ll meet up and we’ll – the supply chain will be bigger and more diverse.

(Break.)

Dr. Majkut: Welcome back. Thank you for joining the program. Joseph Majkut, director of the Energy Security and Climate Change Program here at CSIS. I want to continue this conversation and draw on some of the threads we heard from Undersecretary Fernandez with a panel of like experts.

I’m really grateful that you’re all here. I’ve learned a lot from each of you as we’ve been working on our own research. If you give me just a minute to kind of plug in a couple of the things, we heard from Undersecretary Fernandez to ground our conversation because it does relate to how we’ve been thinking about this challenge, right?

You know, I heard kind of two things from him. One was this – the role of information sharing, right, and the role that the MSP and the State
Department and all these government activities can play, and project identification and information sharing about ESG standards. I think we’d – I’d love to talk to you and hear your guys’ thoughts on that.

The second piece is this need to get private industry in the game, right? The broad picture that I’ve got is that when you have state-owned enterprises, backing from state-owned banks, you can afford to take risks that it’s hard for the private sector in Western capital markets to take on and that seems to be one of the biggest challenges we face.

You can have the – you know, all due respect to the efforts of our colleagues in the State Department and the government. They can go out and find projects but if you can’t get private capital into this, like, the scale problem associated with the three to four times increase in consumption just seems impossible for us to really create a diversification. Each of you have written and talked about that and I think I’d like to start there.

I’ll introduce our guests as we roll through because with an – just so we don’t spend too much time on the formalities.

Frank Fannon is a senior advisor here at CSIS. He’s the managing director of Fannon Global Advisors, where he’s doing a lot of work on the minerals supply chain. And, importantly, he is the former assistant secretary for energy resources. And Frank had a lot of foresight about how much of a challenge this was going to be for the United States, did a lot of work in the previous administration to establish this as an issue that the State Department is paying attention.

Really, thank you for that. You recently wrote a piece in The Hill, I think, about this private capital issue, right – how do we get our firms in the game here – and you wrote about establishing guards against market power manipulation and you were pretty frank that this was about competition with China, right, that the supply chain right now is vulnerable to manipulation, to policy change in China, and creates a lot of advantage on their side.

So how do you see this issue of getting private capital into our field? And what does the USG need to do to help?

Frank Fannon: Yeah. Thank you, Joseph. Thank you for convening this.
And I just also have to say it has – it’s been a remarkable evolution since when I started talking about this 2018. You know, at that time the question was why are you bringing this to us – why are you talking about this issue, and that debate is over. Now it’s what are we doing about it. So, it’s been a remarkable evolution in thinking so I’m appreciative of that.

I think the scale of this challenge, which I reference in the piece – we talk about this energy transition, but just put it on the numbers in terms of dollars. Because governments can talk a lot, but in our way of the world in the West governments don’t actually do anything. The private sector executes. Government does nothing, except can establish policy frameworks and parameters.

But we’re seeking to transition our economy from a fossil one to a non-fossil-based economy. The oil and gas sector – this is an IEA number – was valued at $4 trillion last year – $4 trillion dollars last year. The base metals market, which is multiples larger than critical minerals, was valued at $551 billion. So, we’re going to transition from 551 billion (dollars) to something that’s valued at 4 trillion (dollars). That would suggest to me we’d have this investment rush to new mining projects.

Dr. Majkut: Right.

Mr. Fanon: Sounds like a really good investment thesis. Yet, investment – exploration investment was only $13 billion last year. That’s from S&P. Thirteen billion (dollars). By contrast, the oil and gas industry, where we have demand-destruction policies, the investment was $500 billion, basically the value of the base metals industry as a whole.

So, we’re not seeing the investment occurring, even though we have all of these policy tailwinds to suggest it. Why is that? What I – the main reason why is if you’re building a mine you have to anticipate what is the value of the commodity that you’re – going to be produced 15, 20 years from now. But if China controls the dominant supply, they are the price determinant of what that future outlook’s going to be. And until we create policies and instruments that are meaningfully and credibly can affect that pricing mechanism, so you differentiate pricing based on – whether it’s on corruption, anti-corruption, human rights, environmental policy, whatever it is, but in case we start to integrate some differentiation of pricing I don’t know how we’re going to incent
the things that we’re doing. And a lot of the policies we’re promoting right now they’re well-intentioned, but we have to get to the fundamental issue of the differential in pricing and right now some of our policies are a bit muddled in that discussion.

Dr. Majkut: Maybe you’ll let me put you on the spot because I know you have an opinion on this. IRA tax credits, kind of – at least for anything in the battery supply chain creates a pretty – you know, hundreds of billions of dollars of potential value here. Is that a tool that can accomplish what you’re talking about?

Mr. Fanon: I definitely think it is. That’s why I think we need clarity over the foreign entities of concern. You know, this question’s been out there, should have been addressed. But the administration is still struggling, I guess, on how to address it. And you know, Senator Manchin had some pretty strong views on how he thinks it should be interpreted.

Dr. Majkut: Right.

Mr. Fanon: My fundamental point is that – you know, Ronald Reagan famously said if you want more of something subsidize it; if you want less of it tax it, and we don’t – the administration says we don’t want to increase reliance on China but depending on the interpretation of some of this IRA we could effectively be subsidizing Chinese content.

And so, we need to get this right or we could really imperil the entire – the thesis of the Inflation Reduction Act and I think where we have a bipartisan consensus, whether it’s through the lens of climate action or increasing national security, to address this supply chain issue.

You know, China, when they don’t like the price of something, they create a state monopoly to be the buyer. I mean, they did that in the iron ore market not too long ago. In May they didn’t like the price of cobalt, so they created a state entity to control cobalt pricing. That same month the one cobalt mine in America that was in development decided to suspend operations.

So, China – you know, we focus a lot on banning the export of critical minerals. Far more powerful and insidious is China’s ability to flood the market and address supply and undercut the investment thesis for Western companies who have to have a return on investment. Chinese companies don’t necessarily do that.
Dr. Majkut: Seems like there’s a profound vulnerability there both for producers in the U.S. and sort of amongst our partners or allies or the world as well as consumers.

Ronald Reagan also famously said the most terrifying words in the English language are I’m here from the government and I’m here to help. So, we’re definitely going to have to help our colleagues in the government not have that be the case on minerals. (Laughter.)

Abby Wulf is the VP of critical minerals strategy at SAFE, an old friend of mine from when we were both at the Geological Society of America, which had rocks all throughout the office, and now she’s been doing a lot of leading work thinking through one of the other things we heard from Undersecretary Fernandez, right? ESG, supply chain transparency, sort of the development of this high road supply chain is the competitive advantage that we want to offer the world.

How do we make it work, Abby?

Abigail Wulf: So, I want to address that while also pulling on the investment thread as well because we view, you know, secure supply chains as being diverse supply chains and we see high standards as being really the way that you diversify those supply chains, and when you’re talking about getting private capital investment off the sidelines the problem isn’t just getting that investment off the sidelines.

The problem is getting investment in places where there traditionally hasn’t been investment so that you can diversify away from where mining processing is currently being done, and that IEA report that actually came out last week said that, quite contrary, you know, now it’s, like, 4 percent of all D.C. funding is involved in critical minerals supply chains, which is way up from where it was just three years ago.

And so, but what they also said was that, you know, instead of supply chains being more differentiated it’s actually quite the opposite. They are not only still concentrated but even more concentrated in two of the key elements that we care very much about right now, nickel and cobalt, and on top of that ESG standards have not changed for greenhouse gas emissions, water use, and waste products as well.

And so, I see those things as being – all of those things as being incredibly interlinked. And the issue is, yes, we are not a planned
We are a free market economy. And all we have – the government does not mine, we do not make products, and so all we have are our market signals. And the strongest market signal that we have right now is the Inflation Reduction Act, and within that the clean vehicle tax credits, which stipulate where you can and cannot get things from to get that clean vehicle tax credit.

But we are all waiting on that final guidance to say just how strong we are going to be on where you can actually get those things from, just how many critical minerals agreements we're going to give out to various countries in order to make sure that we can deploy the amount of vehicles that the administration has committed to deploying by 2035.

And so, you're never going to get private capital off the sideline to invest in someplace other than Indonesia, and I'm not knocking Indonesia, but we already get 50 percent of our nickel from Indonesia. So, if you're focused on diversifying your nickel supply chain you probably want more nickel from Australia rather than from Indonesia, or the Philippines or Canada or anywhere else.

But you're not going to do that, get investors to say, oh, yes, it's worth it for me to spend my tons and tons of capital on this other project if I know that car companies are still going to be buying the cheaper stuff from Indonesia.

Dr. Majkut: Take us one level deeper on this question of kind of the tax credits and the rules around content. Like, what are – is there some critical decision that is going to completely change the game or is it a whole set of decisions that Treasury is making on the various bits and bobs that go into an electric vehicle?

Ms. Wulf: It will certainly be a whole suite of things. I mean, one part that my team and I are intently focused on is the definition of constituent materials, also more keenly on the definition of what constitutes a foreign entity of concern.

And so, everyone is sort of waiting with bated breath and, you know, the CHIPS Act has one very bright line that says how much Chinese content you can have in your supply chain versus not. We're sort of wondering whether that should be more of a case-by-case basis.
Of course, there are lots of conversations going around. You know, is DOE inadvertently subsidizing, you know, our strategic competitor in some of these bipartisan infrastructure law grants.

But it’s also very difficult when you had – you might be actually inadvertently punishing some of these first movers – innovative movers within the United States who maybe are not at the startup phase but are more in the middle of their journey to developing batteries, and in the meantime while the United States and others were waking up to this issue had no other choice but to work with Chinese companies in the meantime.

And so how can we make sure that we are simultaneously supporting those early movers, making sure we don’t, you know, lose that kind of competitive edge that we had while also bringing up these new suppliers while also not subsidizing our foreign competitors.

Dr. Majkut: Right.

Ms. Wulf: It’s complicated. (Laughter.)

Dr. Majkut: Actually, that was more followable than you think it was.

Let’s bring Cullen into the conversation because there’s another side of this that is worthy of interrogation. Cullen is a senior fellow at the Peterson Institute. He sits atop, like, a very wide-ranging interesting basket of scholarship on natural resources, energy markets, conflict, climate change.

I encourage you to check out his work if you haven’t already, but he’s one of the really thoughtful people on cartelization and buyers’ clubs, right? So, the undersecretary talked about the Minerals Security Partnership. That has been kind of invoked by some as a buyer’s club, though I think they’re pretty clear about they don’t want it to be that just yet.

The idea of kind of group purchasing as a way of providing a price signal, providing transparency and standards, is floating around. We’ve seen multiple governments talk about it.

Cullen, you’ve written a paper about why buyers’ clubs are something we should be maybe skeptical of. I’d love to hear your thoughts on that but also just on the broader picture of, you know, capital markets are
responding to incentives. How do we create incentives on the buy side that are sufficient?

Cullen Hendrix: Great. Thank you very much for having me here.

I’ll start with just one more point on this issue of bringing capital into these markets. We’ve talked about political risks. We’ve talked about pricing risk when we are facing essentially a monopoly producer or quasi monopoly producer who has complete sort of pricing power in these kinds of markets.

One of the other risks that we haven’t talked much about, and I’m not qualified to really dive into it, is the risk of advances in battery chemistry. The materials that we are prioritizing now are not necessarily going to be the materials that the material scientists are going to be telling us we’re going to be needing 10 years from now.

I’m told that option pricing in markets is going to take care of this problem for us. I do work at the Peterson Institute. I’ve got fairly firm belief in markets. I do not think that that’s going to be a solution to this particular problem.

So, I do think that there is a role potentially for government in providing some sort of insurance in order to, you know, really add an additional impetus that will remove some of this hesitancy from private capital markets getting in there. So, we can talk about that maybe –

Dr. Majkut: I think we should talk about it right now. We can get back to my other question.

Dr. Hendrix: OK. Sure. Sure. I mean, no, and that – again, I’m not a battery chemist. But if you are making a decision, as the undersecretary said, about putting a shovel in the ground 10 years from now that you have to make right now and start moving, you know, amounts of money that starts with Bs, right, in order to make that happen that’s a very, very, very difficult and trepidatious kind of decision to make under that kind of fundamental uncertainty about what the future demand will look like.

The IEA is giving us great projections and they’re the best thing that we have to go on, I think, in terms of a shared consensus around what
the future might look like. But humans are notoriously bad at anticipating the results of technological breakthroughs and how that's going to affect their current solution set to particular problems. So that's what I would say about that.

On the other hand, this issue of bulk purchasing, so right now if you take the undersecretary's kind of characterization – maybe it was your characterization – if you’re dealing with a cartel of one that has a lot of pricing power there is something that’s sort of intuitively appealing to getting a group of like-minded, and maybe one of you knows the true definition of like-minded countries. I think I know what that group looks like. Let’s say it’s the MSP for now. Getting a group of like-minded countries together to coordinate purchasing in order to fight market power on the producer side with market power on the consumer side.

That would be sort of the most extreme kind of position you could take on a continuum that might range from this information sharing of a variety of different types to sort of a more middle ground kind of approach, which is the one I think I’m probably most in favor of, which would be using a mechanism like the International Energy Agency to coordinate stockpiling and so the idea being that this would operate relatively similarly to how this operates in the oil markets and with strategic petroleum reserves, which are useful for a variety of reasons, one, in terms of, you know, kind of cataclysmic supply disruptions due to geopolitical events or to – you know, or to natural disasters.

But they also are helpful in that both on the purchasing side to stock them up or the release side they give you a little bit of control over pricing. Just to get to why I think cartels are bad, if the whole point here is that we need a somewhat higher and consistent price signal in order to catalyze this kind of private-sector investment pulling together a club that is going to attempt to set a market price that is below what would obtain under normal market conditions isn’t – right, basically, making these materials cheaper is an odd way to catalyze kind of a gold rush of investment into a market, at least to my mind. Some may feel differently about that. And then, just finally, I don’t love the optics of a bunch of countries that got relatively wealthy burning fossil fuels starting off the energy transition by saying to a bunch of primarily lower- and middle-income countries that are major producers of these materials that actually we are going to act in ways that are inimical to your interests and a shared vision of economic prosperity, moving forward.
Dr. Majkut: Yeah. Quite a bit there.

I mean, like, Frank, you know, we should – I want a little crosstalk here. You are working with the private sector on this issue now. You’re trying to help people think about these kind of, like, risk capital questions.

Cullen raises this idea of, like, some enormous government-backed put option. If we don’t need – turns out we don’t need cobalt in 10 years, like, the government will step in and help you pay down your mine or accelerate its depreciation or give a direct subsidy or whatever. Any thoughts?

Mr. Fannon: Yeah. I mean, I think we – I mean, the IEA, you know, that was born out of the oil crisis. It was – and the whole stockpiling system was created for oil. It’s still its actual purpose. It talks a lot about other things but that’s the actual purpose.

The challenge we have with these metals is that, you know, the U.S. Department of Defense is the single largest purchaser of oil in the world.

Dr. Majkut: Right.

Mr. Fannon: But it is relatively insignificant when you talk about the entire retail market of America for oil. So, the stockpiling of all of these different metals and minerals I think would be remarkably a complex challenge orders of magnitude and it won’t address the energy transition question that we’re seeking to solve.

Now, when the DOD comes out, and I talk to – a lot of companies talk to me and they say, oh, well, can you get me a DOD procurement deal for some – there’s always a rare earth company somewhere and –

Dr. Majkut: Right. Right.

Mr. Fannon: – you know, it’s – the way that plays is it’s a game of musical chairs, right? I mean, the music’s going to stop and there’s a hundred companies and three of them might get some kind of – or some – because what DOD is seeking is for DOD’s needs, which are tiny
relative to the scale of the market. So, I don’t think it’s a – it might be nice around the edges, but it’s just not solving the broader problem.

Dr. Majkut: I mean – I mean, like, it seems to me, like, you know, we – when we think about this there’s that basket of critical minerals which are important for defense applications and, hopefully, relatively static demand for those. The other – this set of minerals which are important for energy transition where we’re going to see three or four or five times more demand maybe, depending on technological pathways, that’s, like, a totally different set of public policy problems.

Mr. Fannon: Oil works because America has refining and refiners. We don’t have processing. We don’t have all of the other elements. So, I think by focusing on that it also creates degrees of complexity and introduces new problem sets.

Now, maybe we can have cooperation with the Japanese or the Koreans, who are expert. But I don’t know. I think, meanwhile, we’re increasing our dependency on these metals and minerals and, you know, showing up, diplomacy, bringing countries together to coordinate, is critically important and it’s hard work. But we need to deploy the capital to actually build things.

Dr. Majkut: There’s so much to talk about. I’m not looking at the online questions. I’m ordering Gatorade for the audience because we’re going to be here for four hours. (Laughter.) Actually, no, we’re running up against time and, unfortunately, I think we’re going to have to keep probing this issue, obviously.

Abby, I’d love to close with your thoughts on, you know, what does success look like. One of the things I learned doing this – writing this paper and is, like, we actually now have a lot of tools. It’s not like there is an absence of critical minerals policy. There’s quite a bit of money. There is – you’ve got the MSP. You’ve got spending programs kind of at different parts of the government. But, like, on the next year, two years from now, four years from now, how do we measure success and how if – and then if we’re missing those measures what do we have to do to adjust them?

Ms. Wulf: Success, to me, looks like diversification in the supply chain. I think you’re going to see success if we continue to see increased investment in diverse places such as, you know, in the United States, if we can be a
little self-serving, but also, you know, within Canada, Latin America, even within Africa to help build up their processing capacity, because as Frank rightly pointed out all this conversation around stockpiling has always been a little bit confusing to me because what the heck are we stockpiling because we don’t process materials in the United States.

So, yes, if we can help the European Union, help Korea, help Japan build up their processing capacity, because we’re not starting from zero there, while also building up capacity within North America that is a win to me. But, again, I think that definition of constituent materials will, you know, greatly affect where you’re going to see a lot of that midstream development.

Dr. Majkut: Well, we will watch it with a hawk eye and when we see developments from Treasury maybe we can invite you all back for commentary.

I want to sincerely thank you not just for being here today but for your work on this. Cullen, Frank, and Abby, thank you so much.

Colleagues, if you wouldn’t mind, your warm expression of thanks for their thoughts and efforts. (Applause.) And for colleagues joining online, please do check out CSIS work on this. Check out the work of our colleagues. And following the conversation we’ll be publishing a few more pieces over the next couple of months kind of digging into the threads of transparency, ESG, market formation, and how we steer all these tools to develop a real strategic approach instead of a haphazard one.

Thank you so much, and we’ll see you next time.

(END)