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From Co to EVs: Global Energy Challenges
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Meghan O'Sullivan, Director, Belfer Center for Science and International Affairs, Harvard Kennedy School, Harvard University; Former Deputy National Security Advisor on Iraq and Afghanistan
Dan Stephens, Senior Partner, McKinsey
Moderator: **Steve Clemons**, Contributing Editor, *National Interest*
Session recording:
https://www.youtube.com/watch?v=CXtFZfvnwJg&list=PL7fuyfNu8jfPTKp6PJ2yJugSfxXEDyEqM&index=17

Steve Clemons (01:03):
Hey everybody. Can we give a big round of applause for Roger Carstens again? He does incredible work. It's so important. Okay, now we're going to start our new panel. Let me just open this for a minute and ask a question, which I am a realist. I worked for Richard Nixon in the last two years of his life on earth, and so I thrive in cynicism and darkness, but I'm joking, but I want to have a realistic discussion about the global energy challenge, what's happening, but also where we stand on our climate targets, where we stand in the green energy transition. And let me start with you, Megan, and ask this question. When I sort of look at the world and Joe Biden's sanctions of BYD and cars are being produced that are apparently have a thousand mile range and run about $9,000 a car. If I look at February 23rd, 2022 and the invasion of Ukraine by Russia and what had been a process of the weaponization of energy, and I look at Houston today at restaurateurs and others that haven't had energy for days, Dan and I were talking about this. I'm just interested in whether gravity, whether the geostrategic picture out there, whether our energy grid is designed in such a way that as you think about this energy transition, which is the lofty goals, is realistic goal in any way, shape or form. But let's start with the geostrategic picture, US China competition, US Russia competition, and are there any forces out there helping us win?

Meghan O'Sullivan (02:40):
Sure. Thank you Steve and it's great to be here with you and my fellow panelists. You didn't even mention the whole question of AI is a huge consumer of energy.

Steve Clemons (02:51):
It's coming.

Meghan O'Sullivan (02:51):
Well, not only is it coming in, it's here, but I think more than any other single thing I think about, its to blow the world off track or further off track on its energy transition. But going to the big

strategic question, I would say what we have is exactly what you described. We have a situation where we have a deteriorating geopolitical environment, we've got more fragmentation, we have great power competition, polarization, all of these things happening at a global level in a way that hasn't really happened for decades. And all of these trends are actually complicating the energy transition and at the same time the energy transition because it is not something that's smooth and easy to plan out. The energy transition is reinforcing some of these negative geopolitical trends. So we're sort of where we don't want to be in this intersection of geopolitics and the energy transition. So the good news is though, I think there's an opportunity to shift that cycle. And Jason Boff who is somewhere here, he's

Steve Clemons (03:57):
Out. He's a great guy. He's out here. Jason's in the corner and if you guys get bored, he's with us. He's really interesting on energy. He's at Columbia University. Go ahead. So

Meghan O'Sullivan (04:05):
Jason and I write a lot about this topic and we've just written about how to reverse this cycle. There's so many different ways to pursue net zero to execute the energy transition. Let's try to do it in a way that actually can be a,

Steve Clemons (04:19):
Lemme ask You a question before I jump to Ernie and Dan solve. I'm going to ask you, are we serious about that in the United States? And I asked this not in a facetious way or a cynical way, but I am really, when I look at China, China is threatening to dump vehicles all over the world. China has invested so heavily in solar panels and solar. I mean, I've spent a lot of time interviewing Ernie Moniz and learning about technology that might make the inflection point in a lot of this stuff. And I've seen China adapted in many ways more quickly than we have in the United States. So are we serious,

Meghan O'Sullivan (04:52):
I think, are we serious about the energy transition? Yes. Are we more serious about the energy transition than national security? No. And this is what we see. These two things are coming up against each other rather than working in tandem. And when forced to choose between national security and the energy transition, national security is having the upper hand. And the question is, is there a way to rejigger that so that choice is not as stark and so that the energy transition can be pursued in a way that at the very least it's not in competition with national security aims. I mean the EV question, all these advantages that China has in clean energy supply chains, those are seen not only as national security advantages for China, but they're also seen as challenges to the American domestic economic scene. And you put those two things together, it's very powerful to say, well, if the energy transition matters, then we should just let China supply the world with very cheap inputs and technologies and vehicles. That's not going to happen as long as those things are tension.

Steve Clemons (06:05):

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Ernie, Secretary Moniz I should say. But Ernie, we know each other. I keep saying that Ernie is, if there was a modern day Oppenheimer, which meant an energy smart nuclear physicist who had a soul, it would be Ernie Moniz. And so Ernie, let me ask you the question. I don't know if you remember the interview I did with you at Carnegie many years ago in which it was sort of during the ARPA E. So one of the greatest organizations out there is called ARPA E. It's about sort of new energy development sponsored by the Department of Energy and partnership with the private sector. And it was kind of like a James Bondish moment where you kind of walk through unbelievable technological innovations that we were on the edge of in the energy space. This was years ago. And I'd love to know whether that future which you shared with us is coming to fruition or whether there are villains in the story that have become enemies of this transition that you described long ago.

Ernest J. Moniz (06:57):
Steve, first I'm going to answer your first question, the one

Steve Clemons (07:01):
And the second. Right?

Ernest J. Moniz (07:03):
And the second as well. I think, and I say this to Megan as well, I think that actually the events of the world, you mentioned Ukraine for example, although I remind you Ukraine 1.0 was in 2014, not in 2022. And that's actually relevant to this point. I want to make that one of the things Ukraine has done is force a pragmatism in the climate discussion that I think is most welcome. Namely that energy security, clean energy climate and social equity, which is part of the same geostrategic argument, I think have been realized to be one conversation and not three. And that's where I think there are alignments. For example, in 2014 when the Crimea events occurred, the G seven in the EU looked for the first time since the 1970s at seeing something modern and somewhat formal about what energy security meant. There were many aspects among them was that in the longer term at least decarbonizing the energy economy is part of energy security, energy insecurity is all about carbon.

Steve Clemons (08:29):
And did Germany play well in that moment?

Ernest J. Moniz (08:33):
Germany played by some measures very well in that moment. Yes.

Steve Clemons (08:40):
I mean I'm referring to Germany giving up its nuclear power industry.

Ernest J. Moniz (08:44):
Correct. Look, in the broad push for that declaration by the G seven, which was put into effect in June, 2014, the Germany pushed very hard for the green components of energy security. Now I think their decision on nuclear power was not well aligned. But again, in my slightly pollyannish

pragmatic mode, I would say that on nuclear power, there was again a pragmatism at Cop 28 that not only allowed one to say the word nuclear in polite company, but even had Germany as the dog that didn't bark, which was progress in the German case on the social equity. Some may think that that is not part of that conversation of energy security and clean energy. I beg to differ. We can start with the, and go from there. The pushback that we are getting from societies all over the world in terms of the clean energy transition is very, very real.

(09:55):
And that's why we have to discuss all of these as one conversation. Now in terms of, I'll just end with a few words on your actual question. Thank you. I appreciate that. On the technology that, look, first of all, are we serious? You asked. We have always been serious and relatively bipartisan on technology innovation. We have not been on policy innovation that remains to be seen. But on technology there has been constant support. And that continues including for elements of the clean energy transition that are not so popular broadly like nuclear power, like carbon capture and sequestration, large scale carbon management. All of those are progressing substantially but still have the big cost reduction curve ahead of them. Another one is hydrogen. Whether hydrogen proves or does not prove to be a major part of the transition, I think we really don't know yet. But what we do know is if we don't get the cost trajectory going down, it will not address the hard to decarbonize sectors.

(11:15):
But a lot of innovation going on, including by the way, the third element of innovation besides technology and policy that I think is critical is business model innovation. And that is going, I think quite well in various sectors. And finally, just to end on the highest note, the technology that I think has made enormous progress even since we spoke back at Carnegie and which could be the savior or a flop in terms of clean electricity, and that's fusion. And that's been not entirely in the public eye, but there's been over 6 billion of private capital in innovative fusion approaches. I'm on the board of one of those companies, so I'm not completely neutral here, but I think that the scientific answer as to whether that dog hunts will be known in this decade, and I think the odds are pretty decent. It's going to be a possibility.

Steve Clemons (12:18):
Before I jump to Dan, and I'm going to ask any one question, was it a smart move of Joe Biden to raise tariffs on BYD?

Ernest J. Moniz (12:30):
I don't think, well,

Steve Clemons (12:32):
In case people don't know BYD is sort of the Toyota of electric vehicles. Chinese, Chinese EV company or the Volkswagen pick your, it's the next sort of uber Cheap, High performance popular EV car. Warren Buffett invested in it, but we're blocking it. But is it good for the world that we put a bunch of tariffs on that?

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Ernest J. Moniz (12:55):
I'll answer Your question a bit more broadly, but briefly, it's all about addressing the real need we have for resilient supply chains in many sectors of the economy. We need to do that. There are some areas in the clean energy space like critical minerals and metals, not only the mining of them, but I would say especially the refining of them where we need better hygiene in our supply chain. Whether that argument applies to solar panels, electric vehicles I think is much more dodgy, shall we say.

Steve Clemons (13:31):
Well, let's jump to Dan oh megan, you want to jump in with the two finger? I apologize

Meghan O'Sullivan (13:34):
Just very briefly and supporting what Ernie said here about there can be all these great advances in new technologies and hopefully there are more on their horizon, but that can be true. And at the same time, it can also be true that year on year, the world is emitting more carbon emissions every year. And that's where we are, where we are in a situation where we haven't really begun the hard work of transitioning, of displacing carbon intensive energy for zero admissions energy, even though we're having all these fantastic technological innovations. So it's good to keep both of those things in mind.

Steve Clemons (14:12):
Dan, let me ask you a question, Dan at McKinsey and McKinsey studies lots of simulation scenarios about where the right equilibrium is between these different forces. And one of the things that really interests me is Milwaukee right now in the Republican National Convention and what all that means for this topic right down the road, the IRA, which was celebrated, the Inflation Reduction Act, which was celebrated by a lot of renewable energy enthusiasts, is really only half renewable energy. The other part of it was about energy security including fossil fuels, including coal and oil and et cetera. And I'm interested in how you see the future and the equilibrium point between the energy challenges in this country, like what we're seeing in Houston today. And if President Trump is reelected, whether that renewable energy part of the IRA is thrown into the trash.

Dan Stephens (15:07):
Well, I'll tell you what I think the balls industry has its eye on. I'd start from the US energy industry now is doing very well. The oil and gas industry in particular is doing very well. There are some signs, there's a story in the FT this week about markets anticipating negative impacts for renewable developers. I think Ted was down six or 7% earlier this week. There's some view that particularly offshore wind in a Trump administration would have a harder time. I think there's a few balls to have your eye on. There's a set of carrots in the IRA that are mostly tax credits, and so you need congress to change them. And certainly things like residential solar, electric vehicles benefit from those credits. There's a few, Ernie mentioned one of them, hydrogen maybe would be fatal to remove the tax subsidy. Now because of what already described, because we don't yet know what role hydrogen plays and how the Biden administration has

pursued a set of sticks, which presumably a Trump administration would turn off. That's in automotive efficiency, in utility skill, power generation. Those might fail in the courts anyway.

(16:32):
There's a role government plays in demand in buying these technologies, which actually my view would be governments massively underutilized that lever. And then there's the role that government plays in allowing us to build things. And years ago saw an interview between, it was Bill Crystal interviewing Paul Bal, Paul Bal, the mastermind of the 92 Clinton campaign. And this was in 2015 maybe. But he had a phrase which was, folks tend to focus on our polarization, but the real issue is that we're paralyzed, not polarized. I think that's actually the biggest ball to have IRA on that the certainly a Trump administration might make offshore wind permitting more difficult, but a lot of the unlock that needs to happen in the American energy system is building more stuff faster. And neither administration has really moved quick enough on that Front.

Steve Clemons (17:34):
Look, one of the things I've learned from Ernie Moniz, and he mentioned it here just a minute ago, Dan, was sort of what businesses themselves were doing particularly at scale, lower scale, transnational businesses are very obsessed with net zero and reaching goals and deploying new technologies and you see that. But the other thing that I find is for whatever reason, state and local governments tend to be very focused on achieving things. Even in red states. I've noticed this performance. And so I want to ask you, and I want to ask all of you, particularly with the energy transition here, are we a little bit too obsessed with the federal government's contribution in place in this? In other words, could we have a future where we actually make a lot of progress on a green energy transition and America's energy needs even if we don't have a cheerleader at the top, Dan?

Dan Stephens (18:27):
Well, I'd say on some topics like permitting and construction, the states can do a lot. State utility commissions can do a lot. There are other topics that can nuclears in this bucket where you need federal dollars in order to buy the US back down the cost curve or down the cost curve for the first time. And in order to create sustainable demand such that industry marshals the capabilities to build those things, it's hard to see the states having enough money to do it.

Steve Clemons (18:54):
Ernie?

Ernest J. Moniz (18:56):
Well, I think the federal role is very important, but I would start off by saying it's not only dollars, it is in policy and regulatory areas, but here there are some big uncertainties. And for the industry

Steve Clemons (19:13):
Didn't the Supreme Court just remove some of that uncertainty?

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Ernest J. Moniz (19:16):
No, they added to the uncertainty.

Steve Clemons (19:18):
Well, I mean I think they removed the certainty of the regulators, right?

Ernest J. Moniz (19:22):
Yeah, that's exactly where I was going. Yes, exactly that the so-called Chevron decision in particular in the Supreme Court that is taking away the primacy of administrative expertise in certain areas and putting it more in the hands of extremely well-educated judges on technology advances is going to cause some chaos here. That includes, for example, ferc, while it still fell short of what I think is needed, but ferc, the Federal Energy Regulatory Commission, I should have said just, I dunno, a month ago or so came out with its most substantial order on building high voltage transmission lines in over a decade. That's probably going to be a casualty of Chevron, for example. So I think there are those problems. But I would also add, if I may, that Dan, with all respect, you used the word sticks, I would've said twigs. I think the current policy is carrots and twigs.

(20:30):
And I think to move to a more forceful, coherent discussion, I think it will come. I can't predict exactly when, but extreme weather is driving the public polling way, way over onto the side of we need to do something. And I think it's very much like, I won't go into the details, but it's very much like the dynamic with the Clean Air Act amendments of 1990 where there was a science discussion about acid rain going on and on and on, and when it flipped fast into regulation. So I think that's going to happen. Extreme weather will be the driver, but I don't know if that's going to be in one year Or 10 years.

Steve Clemons (21:22):
Megan, you're a former deputy national security advisor. You worked in Republican administrations. And I want to ask, I want to take the temperature of the Republican crowd, so well, excuse the pun, but what is the temperature inside the Trump Circle on the kind of issues we're discussing today on whether you think about it through technology advancement that may help with green energy transition, or you look at it on a much more big tent energy security portfolio where fossils remain a very big, I mean, what do you think the dance card looks like for the Trump team?

Meghan O'Sullivan (22:01):
So I think there are a lot of people who would question you asking me for the inner Circle.

Steve Clemons (22:07):
Well, you're the closest we've got.

Meghan O'Sullivan (22:10):

Yeah, I'll have to do, I'm happy to take it. I would say mean we saw it just with the appointment of JD Vance as the VP nominee and his perspective on climate change, being very, very skeptical I think suggests where the inner circle and the Trump world is on climate. I think the reality, so what would that mean if there were a Trump administration? I think we would probably see a repeat of the US coming out of Paris. We'd see a lot of rhetoric that would be negative, but there are a lot of new things on the ground. There's a lot of new realities that cut in multiple ways that I think some elements of a Trump administration would be supportive of. In line with what Dan was saying, a lot of those carrots going out through the IRA are going to red districts, they're going to Republican areas of the country, like hundreds of billions of dollars.

(23:06):
And there will be politics within the Republican party. There will be constituents who will want to keep those incentives, will want to keep that pipeline of money. So I think it becomes more complicated when we get down to the execution of things. There's a number of the new technologies that Ernie mentioned, which Republicans are going to be in support of nuclear energy, carbon management, carbon capture and storage. All of these things I think will continue to have Republican support. So I would say at the high level, the rhetorical level, not going to be very encouraging, but if you look at the people of the United States, Republicans and Democrats and independents, I think you do see a shift in how people are looking at climate change and the reality of it. And I think that will reflect itself in politics even though at the very top we're going to see a setback,

Steve Clemons (24:00):
Yeah and then Dan, yeah,

Ernest J. Moniz (24:01):
I just wanted to comment, support what Megan said that, look, I don't want to be Pollyannish here because a Trump 2.0 will be

Steve Clemons (24:13):
Get us to 2.0 degrees

Ernest J. Moniz (24:16):
Quickly and will be tough on certain elements of the program. But data Trump 1.0, you could hardly notice the difference on the ground. And that was, I mean, sure out of Paris, Paris didn't change anything on the ground and the private sector had made the decision that they were going to stay the course. Basically, I think there'll be a bit more wobble if there's a Trump 2.0, but it's not going to be like everything tossed overboard.

Steve Clemons (24:54):
Dan, let me ask you to respond to any of this, but at the same time, put your McKinsey hat and take advantage of your expertise here. One of the things I'm interested in is the domestic dimensions of this energy equation because I interviewed governors, I interviewed Governor Westmore of Maryland and ask him about National electric grid and what a more efficient

distribution of systems that would benefit both in conservation, but all distribution would help bring in renewables better. And yet if you talk to him about how he's getting along with the governors in Delaware and Pennsylvania and Virginia, it is a complicated picture. And so I'm interested in the challenge of ego management and these national investments in things like the grid, but also in EV infrastructure. If you look out there, a lot of people talk about it. A lot of people want to see it, and I certainly see it more and more, but not to the degree that you could imagine. We're anywhere near it. So I'm interested in if you were to give the federal government, state governments and the industry some council, what would be the things you need to get out of the way to achieve EV infrastructure, a grid infrastructure, the things that make this all easier?

Dan Stephens (25:59):
Yeah. Well, let me add one thought to the previous discussion,

(26:04):
but then I'll get to your question for sure. We didn't talk about the European Carter border adjustment, which I actually think maybe I'm in Ernie's optimistic camp. Maybe this is Pollyanna-ish. I think that will have the impact of triggering other regions to create similar mechanisms for no other reason than if you don't, the tax dollars either go to the Europeans or they stay at home, and I think most jurisdictions will choose to keep them at home. Is that as good as a perfectly efficient carbon price? No, but it is a step probably in the right direction, and I think that's probably true in either administration that US industry will not like the idea of paying taxes to the Europeans without a domestic mechanism on the domestic build out front. The things I'll tell you, the things I worry about is I got lots of concern about cybersecurity on the grid, lots of concern about resiliency on the grid. All that's much more serious in the context of a Pacific conflict. Our grid's not well prepared for the intermittency that it would have to deal with if you were to ramp up renewables.

Steve Clemons (27:20):
So you're saying we shouldn't build it.

Dan Stephens (27:22):
Right. And I think the governors it to varying degrees. The states are realizing that. I mean, I think Texas is in the midst of the last few years, has realized that very deeply. It's pretty hard to fix, right? That's not a simple fix. And to me, the interstate collaboration is, my instinct would be the interstate collaboration is actually less important than the entrust state activity that there's enough the states have to do to get their own ducks in a row internally. There's probably a lot more work to do there before they are ready to tackle the more complex, I think as you said, more complex inter-state.

Steve Clemons (28:07):
Ernie, do you Have any thoughts on this National grid investment? And I remember you interviewing Eric Schmidt who was here yesterday and Eric said, Hey, don't poo old technology. Floppy disks are protecting us from hackers breaking into our nuclear weapons infrastructure

because they're all on floppy discs still and haven't been improved. But I'm just interested in why so many elements of our national energy infrastructure seem to be locked in the 1970s.

Ernest J. Moniz (28:36):
You're being optimistic. The Federal Power Act was passed in the 1930s and continues to have an impact. I would've said perverse, but I probably shouldn't. In terms of the separation between state and federal approaches. I mean, this is a really important question because when those acts were put into place many, many decades ago, electricity was fundamentally a local phenomenon. The whole point today is how do we get that to be more of a interstate inter-regional, possibly even continental, although I think that's going a bit too far activity. So we need very, very serious change. Dan mentioned Texas. I think maybe it's worth just giving a factoid to people to understand what it's going to mean to have a clean, modern electricity system. So Texas, as you all know, I'm sure is the king of wind in the United States and it's very inexpensive wind and they move it from West Texas to East Texas very efficiently.

(29:59):
However, I keep using this alien word data. If you look at the hour by hour dispatch of wind in Texas for a year, guess what? There's 90 we looked at for one year, one particular year, nothing unusual about it. 90 days of that year with no wind in Texas, nine days in a row with no wind in Texas. In other words, it's great to have that wind resource and it really does lower the average cost. But then you have to realize somebody has to pay for the backup system because twenty four seven two hundred and seventy days a year isn't good enough. And so we need to, that's where again, all of these things come together in terms of technology. Also, I'll give you another little dirty little secret in terms of quick one. The way we have to revise our regulatory structures. We could do a lot right now with the existing transmission lines by upgrading their capacity, but it's a lot more expensive to build the new lines. However, if your profit is a return on equity, that may look Interesting.

Steve Clemons (31:18):
I'm going to go to the audience to grab a couple of questions. We're very short on time, but just before that real zinger answers if here, one of the other areas that I was interested is during a time the United States was condemning the Nord Stream pipeline and gas pipeline, the United States was quite dependent on Russia for nuclear fuel. And Ernie, you and I talked about this and I'm interested in the nuclear industry because I don't know any way our climate targets are achievable without the nuclear industry. Is the United States able to have a nuclear industry that's not dependent on Russian nuclear fuel? Ernie?

Ernest J. Moniz (31:50):
Yes. The dependency, by the way, I think is less important on the uranium metal as it is on the enrichment services, which we can't so easily do. But the key is going to be, Steve, that what we need to do, and we are seeing it now with the big customers, the Googles, et cetera, Microsofts, they are now pushing for demand aggregation to meet the load with clean electrons. What we need is demand aggregation and some form of public private risk sharing that will encourage supply chain investments and build out a nuclear infrastructure

Steve Clemons (32:36):
Great. So that's a future thing. Megan, your thoughts

Meghan O'Sullivan (32:39):
On this particular

Steve Clemons (32:40):
Yes. Well, I'm interested in the fact that we don't make a lot of nuclear fuel in the United States. Sure. And I remember Ernie Moniz gave me a line, it was on the record, says America is abrogating its responsibilities in the nuclear proliferate proliferation agreement that it was supposed to create nuclear fuel to supply its allies. We don't do that

Meghan O'Sullivan (33:02):
On tape.

Steve Clemons (33:03):
Yes, it's on tape. I have it on

Meghan O'Sullivan (33:05):
Tape. You will have noted though maybe not everyone in our audience will have noted that. Actually just was it a couple of months ago, you had an American company start to enrich uranium for the first time in decades, I believe so, decades not there. Give me the right number.

Steve Clemons (33:22):
Tiny Itty bitty little bit.

Ernest J. Moniz (33:24):
Mainly US enrichment is by the Europeans yanco.

Meghan O'Sullivan (33:28):
Right, right. But I'm saying that we actually, we starting, we just started it in recognition that

Steve Clemons (33:33):
Dan Paman was involved who may be here somewhere I think.

Meghan O'Sullivan (33:37):
Yes. Could be out here. So yeah. So I think one, we acknowledge the problem. Two, there is a path forward. And again, it's not just Russia, it is other members of the international community that we're closer to.

Steve Clemons (33:49):
Can be very fast reaction, Dan, on nuclear, like 30 seconds. Yeah,

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Dan Stephens (33:52):
I mean our math on nuclear is to get a reasonable amount of nuclear to the US energy mix. Something like a 700 billion investment over the next 10, 15 years. And probably the money's not even the long pull. The long pull in the tent is capability, which enrichment's one example, but it's true about the construction capability. It's true about talent to run the facilities.

Steve Clemons (34:16):
700 billion. Alright, that's not an optimistic number. Let's take one or two quick.

Ernest J. Moniz (34:22):
Can I just jump In with one little factoid on that enrichment? The American enrichment appropriate for the security forum. What we need to do is a twofer in the United States. We do not have the capability to supply things like tritium for our nuclear weapon stockpile, and we should be a twofer for the civilian and the military side.

Steve Clemons (34:43):
So we got a two finger on that. Okay. Real quick here, just real quick. Lightning as Courtney Kuby said, lightning round. Quick question. Yes.

Question 1 (34:49):
Hi. You guys had mentioned critical minerals and getting better hygiene on supply chains. I know that there's the critical minerals partnership, which in my view doesn't have a lot of teeth. I'm wondering what you guys would Suggest

Steve Clemons (35:03):
and quick shout out to Scott. Nathan, whenever, Scott, are you here? He's way in the back. Oh, he's way over there when you're done, because they're not going to have enough time to answer you, Scott. Nathan knows all about this. He's that at the US development. So a great guy to have you come find her.

Ernest J. Moniz (35:19):
I Agree With you.

Steve Clemons (35:19):
One other question. Second of all, let's go to this gentleman in the aisle right here.

Ernest J. Moniz (35:24):
Don't Forget the refining of the minerals, not just the mining. Absolutely.

Steve Clemons (35:28):
Right. Real quick, quick question.

Question 2 (35:31):

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Can the government, or should the government create an insurance company to handle potential nuclear Accidents to give some peace of mind?

Steve Clemons (35:38):
Great. So we've got two great questions. One on the hygiene of critical mineral supply and toughening that up. And the second on nuclear insurance. Megan,

Meghan O'Sullivan (35:47):
Let me quickly respond to the critical mineral question. So I would agree with you that we need to do much, much more. And you asked what would be some things that I would recommend. One is we have to expand the number of countries and partners that we're willing to work with and encourage the development of their own resources. Right now we're focused on free trade partners trying to find a way to get other allies to qualify for those incentives. We need to think much more broadly. The second thing is that we have to revisit some of our trade policy that in order to incentivize other countries to make huge, long-term investments in the areas where China has the ability to dump critical minerals on the global market and tank the prices we

Steve Clemons (36:31):
which they're doing,

Meghan O'Sullivan (36:32):
Which they're doing. We need to recognize we need more incentives like trade access or market access. So I think we need to revisit some of our trade policy.

Steve Clemons (36:42):
Thank you. 30 seconds. Yeah,

Dan Stephens (36:43):
On insurance. Governments are good at buying things and governments can be good at financing things at lending. There's a long track record of governments ensuring things and it doesn't work out

Steve Clemons (36:53):
Well. Excellent. Ernie, final word

Ernest J. Moniz (36:55):
On the insurance. We already have what's called the Price Anderson Act, which is essentially a collective insurance. It's never had to be drawn upon in the history of the nuclear power sector in the United States, but it is there as insurance, if you like, for an accident.

Steve Clemons (37:14):
Let me give a commercial for all three of these people. If you Google them, which I've been doing in research in the background, there's great material out there. But in particular, Ernie Moniz, who is the CEO of the Nuclear Threat Initiative, interviewed Eric Schmidt and their

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discussion about AI and energy and the race and critical minerals and the green energy transition is one of the best I've ever heard Megan O'Sullivan has discussed as you open this with AI and the AI question at Harvard, at the Belfer Center, incredible resources, material, and of course McKinsey's got everything. You're sort of the Wizard of Oz out there. So please give a big round of applause to Dan Stevens and McKinsey Company. Megan O'Sullivan of the Belfer Center at Harvard. And Ernie Moniz, former Secretary of Energy. Thank you very much. Thank you.