

00:00:05.819 --> 00:00:13.920

Robert Stavins: Well, good morning, good afternoon. Good evening, wherever you are in the world. I'm delighted to welcome everyone to this session.

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00:00:14.250 --> 00:00:22.740

Robert Stavins: Of conversations on climate change and energy policy, a virtual forum from the Harvard project on climate agreements.

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Robert Stavins: I'm your host, Rob Stavins, a professor here at the Harvard Kennedy School and Director of the Harvard environmental economics program and our project on climate agreements.

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Robert Stavins: In this series of webinars, as many of you know we're featuring leading authorities on climate change policy, whether they're from academia.

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Robert Stavins: The private sector NGOs or governments and today we're fortunate to have with us, someone with experience in three of those four realms, namely government academia and the NGO world. But before I

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Robert Stavins: introduce today's guest. Let me say a few things about logistics, particularly for those of you who are new to this webinar.

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00:01:07.410 --> 00:01:14.730

Robert Stavins: Series. The first thing to say is that we record as you just heard we record the webinars.

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00:01:15.210 --> 00:01:25.290

Robert Stavins: And the recording the video and audio will be available with some delay, maybe a few hours or a day at the website of the Harvard project on climate agreements.

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00:01:25.890 --> 00:01:38.370

Robert Stavins: Importantly, if you wish to pose a question at any time, please feel free to do so and you use the Q AMP a function that's at the bottom of your zoom screen.

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00:01:38.940 --> 00:01:51.360

Robert Stavins: And you could even start to pose questions now. However, the way will run the webinar is that for the first 30 minutes or less. I will engage in a conversation

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00:01:52.140 --> 00:02:00.870

Robert Stavins: With our guest and then I'll begin to take all of your questions. So at any time you can go begin to put them in. They won't disappear.

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Robert Stavins: And we will adjourn promptly at 10pm EASTERN TIME IN THE UNITED STATES Boston time sure many of you have other things to do, or you want to get to sleep. If you're in East Asia.

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Robert Stavins: So with that, let me turn to today's guest, you know, as I wrote in my blog. A few weeks ago in a slightly different context. The ultimate compliment that

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Robert Stavins: I believe that I can offer someone after having read something they've written is to think to myself, gosh, I wish I had written that

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Robert Stavins: There are two people in my experience about whose work I've thought that regularly and neither of them as an economist, like me.

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Robert Stavins: One is a political scientist, David Victor at the University of California, San Diego, who I was able to engage in a conversation with him my podcast, just a few weeks ago.

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Robert Stavins: And the other is a lawyer and my guest today. Jason board off.

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Robert Stavins: Jason is the founding director of the Center on global energy policy at Columbia University School of International and Public Affairs, where he is professor, Professor of professional practice.

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Robert Stavins: A previously in the Obama administration from 2009 to 2013 he served a special assistant to the president and director

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Robert Stavins: For energy and climate change at the National Security Council, and before that also in the same administration. He was off at the National Economic Council and the Council on Environmental Quality

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Robert Stavins: And prior to joining the emitted station. He was Policy Director of the Hamilton project at the Brookings Institution, which is where, as I recall, at least.

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Robert Stavins: That's where he and I originally met when I was commissioned to write a proposal intended for the event incoming obama administration on a national climate change trade system.

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00:04:09.750 --> 00:04:16.980

Robert Stavins: So with that, it is a great pleasure for me to welcome to this series of conversations

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Robert Stavins: Jason board off Jason, welcome.

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Jason Bordoff: Thanks Rob really a pleasure to be with you and everyone watching and thanks for the kind introduction. Having admired and learn so much from your work over so many years. That's right. Very kind. I appreciate it.

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Robert Stavins: So Jason, you know, before we get into the current state of climate and energy policy, I want to begin in the situation we find ourselves, obviously we're remote in and on zoom because of the global coronavirus pandemic.

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Robert Stavins: So I want to start by asking about two sectors that you're very familiar with. One is the oil and gas sector. And then the other is just climate itself.

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Robert Stavins: And to ask you what has been and what do you anticipate will be the impacts. Let's start with the oil and gas sector of the pandemic and of course the responses to the pandemic.

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Jason Bordoff: Yeah, the, the horrible situation we find ourselves in with this pandemic obviously has led to severe economic downturn around the world.

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Jason Bordoff: Rolling series of economic lockdowns or lockdowns around the world and that has been one of the historically largest shocks.

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Jason Bordoff: To energy demand period and therefore had an enormous impact on oil and gas markets, as you said, in particular, oil prices crashed in March, April prices even briefly went negative.

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Jason Bordoff: And so the prices have recovered demand has recovered, to some extent, in a few places even rebounded above where it was before in terms of gasoline use as people are moving from mass transit to their personal vehicles.

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Jason Bordoff: But when you have this large and economic downturn and certain segments of oil use like air travel are going to be depressed for a while.

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Jason Bordoff: We're seeing a really sharp reduction in demand. And so it will recover and stages. It'll probably take two plus years to return to the level that oil demand was before and it's how we manage the pandemic, how quickly the news of vaccine. The other, the other day might play out.

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Jason Bordoff: What we saw earlier this year was this in some ways unprecedented concern across consumers and producers to come together. And so you have this new OPEC plus arrangement with the Kingdom of Saudi Arabia, Russia, taking the lead to try to manage oil markets and a pretty

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Jason Bordoff: Remarkable city set of events where oil prices crashed were sort of used for decades since the Arab oil embargo to politicians in the US thinking well lower prices are better than higher oil prices.

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Jason Bordoff: But what we saw here was a US president in an election year, getting really upset getting getting quite concerned and displays that oil prices were falling and therefore reaching out to

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Jason Bordoff: The Saudi Arabian Russia, in particular, and saying, Can you please do something about this. Can you come together and cut production to support prices.

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Jason Bordoff: Are a reminder of two things. One, how dramatically the US landscape has changed. We are now not only a very, very large consumer, but also the largest producer of oil in the world. So there are benefits at the pump.

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Jason Bordoff: But there are certain states in certain parts of the economy that can take a larger head.

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Jason Bordoff: If oil prices fall. And the second thing is for all the talk of energy independence, because we were just before the pandemic. We were just about to become a net exporter of oil.

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Jason Bordoff: We are still dependent on the global market. And if there is

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Jason Bordoff: Disruption or supply interruption around the world that causes prices to go up or down. We're going to feel that at home, whether we're importing on a net basis or not.

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Jason Bordoff: And if there's anything one wants to do about that you're going to have to engage internationally in order to do that.

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Jason Bordoff: And the final thing I'll say is that I think the outcome of this price crash will be to do what OPEC say in 2014 when they let prices fall was not able to do

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Jason Bordoff: Which is to take shale down a peg or two. So shale is still a very large source of global oil supply the US is the largest producer.

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Jason Bordoff: But the day is a one and a half million barrels per day per year of US oil demand supply growth probably behind us, you're going to a combination of rising yes G pressures rising interest that demand to see capital discipline and returns, not just growth in production.

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Jason Bordoff: You're seeing more consolidation in the industry right now, a lot of mergers happening that is going to mean that going forward.

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Jason Bordoff: The growth rate of US shale is not going to be what it was before. And that's going to be important for you think about

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Jason Bordoff: If demand recovers and starts to grow again, which we can come back to talk about in terms of climate policy and the rest. What, what that means for the analytics able to manage the market and where oil supply in the future will come from.

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Robert Stavins: Well, since you brought up the climate, let's turn to the second part of that question, namely, what has been the impact what will be the impact on climate change of the pandemic and I'm not

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Robert Stavins: I'm not asking for the policy connection but just the pandemic and the economic response to the pandemic itself in terms of CO2 emissions us and elsewhere.

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Jason Bordoff: Well, we'll see. I mean, we've seen a decline in all sources of energy use, except renewables.

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Jason Bordoff: And. Excuse me.

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Jason Bordoff: oil, gas and coal are all down.

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Jason Bordoff: As a consequence of that will see emissions fall something like 8% this year in response to the economic downturn.

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Jason Bordoff: This is not the way we want. We want to cut emissions, to be sure. This is not the way we want to do it with widespread economic lockdowns and economic pain.

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Jason Bordoff: And just to put in context, you know, the staggering challenge we have ahead of us. If you take a target like one and a half degrees warming seriously as we need to, we need to be on a pathway to reduce emissions every single year 8%

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Jason Bordoff: Think about what it took unprecedented putting 4 billion people around the world under lockdown to get an 8% reduction this year. So it's a reminder of how

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Jason Bordoff: How how huge the challenges in terms of what we need to do moving forward.

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Jason Bordoff: Whether we've seen peak oil demand or not. I don't, I don't know. I don't know. That's really the important question because oil demand will recover.

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Jason Bordoff: If it recovers just shy of where it was before and plateaus, if it recovers to where it was before and continues to grow gradually

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Jason Bordoff: Both of those are wildly inconsistent with anything close to one and a half or two degrees. So we are still very much not on track for that.

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Jason Bordoff: And that's why I think what's important about the pandemic from a climate standpoint is not the two three year, you know, hit to

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Jason Bordoff: Economic activity and therefore reduction in emissions, but but policy response.

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Jason Bordoff: How will policymakers respond to this particularly with investments and economic recovery.

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Jason Bordoff: And stimulus and to what extent blows might go to advancing clean energy technologies that could put us on a different trajectory moving forward.

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Jason Bordoff: than we were before. We've seen that most aggressively in Europe, which is put about 20% of its stimulus funds to clean energy

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Jason Bordoff: I think China's put it at 2% in the US has put about 1% so wildly different areas of focus, but that may change if we see another round of stimulus in the US, particularly with the new administration.

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Robert Stavins: So let's turn to that about

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Robert Stavins: stimulus packages as you said in in Europe, they have begun to put in place a stimulus package, much more is forthcoming in Europe, and there is a definite

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Robert Stavins: To to their approach, particularly with regard to climate change, but not exclusively, climate change, there are other environmental aspects of it.

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Robert Stavins: And then, as you well know, because you were in the administration back in 2009 the Obama administration's American Recovery and Reinvestment Act included some \$50 billion for energy infrastructure, energy efficiency and then renewable energy research and investment.

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Robert Stavins: I'm interested in what you think. Then the US should do the new administration or if you prefer. What you anticipate the new administration will do in terms of its economic recovery plan, including significant green elements.

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Jason Bordoff: Yeah, well we need investments in a clean energy economy. We need standards.

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Jason Bordoff: fuel economy standards and the rest, we need to kind of legislation in Congress to be durable and we need an important focus on

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Jason Bordoff: Issues of equity and justice. This is the frame within which we're going to talk about climate policy and chip target client policy in the US.

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Jason Bordoff: The US economy is in a deep hole, notwithstanding the dysfunction in Washington.

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Jason Bordoff: There is a need for fiscal stimulus and smart government investments that help the economy recover, particularly when the cost of government borrowing is so low. Now is the time to make investments.

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Jason Bordoff: That both help the economy today and help to deliver economic returns in the future investments in infrastructure and the rest

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Jason Bordoff: And I think there are many areas and sort of an overlap in the Venn diagram, if you take a circle of things that are good fiscal stimulus to support economic recovery and a circle of things that are good to advance clean energy

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Jason Bordoff: There is certainly overlap there continued investment and support for renewable energy.

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Jason Bordoff: building the infrastructure that will support a transition toward electrification of the transport sector, things that are harder. I also think it's important to focus on things that

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Jason Bordoff: May not be as reached reached as easily with some of those order policy tools. If you have standards in place or a carbon prices you know better than anyone.

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Jason Bordoff: You know, and it will have an impact in certain areas like electricity harder sometimes to impact sectors like the building sector.

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Jason Bordoff: And so thinking about investments in building efficiency retrofits that can really have some employment benefits, too.

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Jason Bordoff: I think those are important areas to focus on now. I think it's going to be hard. The President like Biden has talked about \$2 trillion of investment in clean energy

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Jason Bordoff: That's going to be difficult, particularly if democrats don't take both Senate seats and Georgia and you have a republican senate

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Jason Bordoff: But as difficult as it may be to move forward on climate legislation.

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Jason Bordoff: I think the economy simply needs a lot of help from Washington. And I think both sides of the aisle. We're going to have to come together.

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Jason Bordoff: And adopt some you know next phase of stimulus measures and I'm hopeful that there are many actually many areas.

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Jason Bordoff: Where Republicans and Democrats can agree a lot of, as you know, wind activity and Midwest states, many of which are red solar

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Jason Bordoff: jobs and employment activity in the southwest support for advanced technologies like carbon capture

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Jason Bordoff: Nuclear things that really Republicans as well as Democrats can agree on. We've done a lot of work on what it would look like to invest meaningfully

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Jason Bordoff: In National Energy Innovation mission there is support on both sides of the aisle for energy innovation for American firms and workers to lead for the technologies of tomorrow.

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Jason Bordoff: And there are huge returns. And then, as you know, economic literature is pretty clear that investments in energy R&D make a lot of sense. So I'm hopeful that we can invest meaning clean energy technology as well.

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Robert Stavins: So I think, you know, conceptually it's nice. The way you characterize it is this Venn diagram that we've got

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Robert Stavins: You know, good stimulus policies. We've got good climate policies and then there is some overlap but I'm thinking about also where there isn't overlap the parts that aren't doing the overlap in that Venn diagram.

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Robert Stavins: There are some challenges because for economic stimulus policy to use a

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Robert Stavins: Shovel that are in the ground with one wants our policies that will have quick economic and employment effects. Climate change is a long term problem you want structural change for the economy, but you're right that there are, there is that overlap in the Venn diagram so

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Jason Bordoff: Yeah, I think, you know, there are certain things that I think in the stimulus package 10 years ago there was a lot of talk of timely targeted and temporary and things that took too.

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00:16:18.840 --> 00:16:19.350

Jason Bordoff: Long

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Jason Bordoff: It took too long to spend the money and they said, No, it's not. It's not gonna have the stimulated impact. I think I wrote a piece on foreign policy over the summer.

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Jason Bordoff: I think there are good arguments for thinking and I'm with a broader lens.

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Jason Bordoff: About what is good climate and what is good stimulus policy, including the extended duration of this downturn, we're not going to be out of this economic hole.

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Jason Bordoff: As your colleague and partner Jason Burma's has been writing about

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Jason Bordoff: You know, within the next year or two. It's going to take many years to dig out of this hole. And so things that have a longer tail like technology innovation investments. I think you can start to think more

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Jason Bordoff: creatively about, but there is a tension. Because there's limited pot of money to spend, particularly maybe in a divided Congress and in addition to investments in clean energy

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Jason Bordoff: We really have to help people who are struggling to pay their rent pay their mortgages keep their businesses open just get money into people's pockets and into the economy.

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Jason Bordoff: That, of course, enter states, right, there's a lot of action that can happen on climate at the state level to, as you know, but state state budgets. Now we're just really devastated and they're gonna need a lot of support as well.

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Robert Stavins: Now as an economist to make sure that I don't lose my union card. I have to, you know, validate what you mentioned Jason and that is the most economists would say that carbon pricing.

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Robert Stavins: Needs to be part of a either carbon taxes or cap and trade needs to be part of a meaningful rod based climate policy in a large

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Robert Stavins: Complex economy, such as the United States and necessary part not sufficient, but but necessary, but the the bike and Climate Action Plan.

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Robert Stavins: As at the website that I looked at of the the transition and what was also released during the campaign is very light on carbon pricing and, as you said, much more focused on government financing of actions that 2 trillion trillion dollars, not unlike the green new deal

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Robert Stavins: Is that what we should anticipate or what you anticipate from the Biden administration, what, what do you think is going to be the portfolio.

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Jason Bordoff: Well, I think they've kind of mapped out what their priorities will be stimulus spending obviously executive action and what can be done particularly again with the Republican Senate.

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Jason Bordoff: If it's harder to move legislation, I assume, you'll continue to see the ritual first and effort at the beta roll back some of the actions that the Trump administration has been in place.

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Jason Bordoff: And then an effort to move quickly to use existing regulatory authority which only allows but requires regulation of pollution local pollution as well as greenhouse gas emissions.

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00:18:56.310 --> 00:19:01.110

Jason Bordoff: In the energy sector from stationary sources like power plants and mobile sources like cars and trucks.

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Jason Bordoff: So, and then a range of other things on nonpartisan methane admission regulations when we went and gas sector others HF sees you know a whole set of things.

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Jason Bordoff: So there's that executive authority agenda and then I still, you know, Hope springs eternal that there may be an opportunity at some point.

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Jason Bordoff: To work across the aisle on legislation which again, if you can get more collaboration across the aisle will make will be more durable.

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Jason Bordoff: You saw recently, Senator Whitehouse and Senator Murkowski come out and talk about carbon tax. There's a small but hopefully growing group of Republicans who are talking about

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Jason Bordoff: Market based mechanisms like the carbon price as a way that they would prefer to go about addressing this and as you said, I think, a well designed carbon price can do a lot more than maybe many people

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Jason Bordoff: Appreciate complemented by a range of other tools to address our market failures and focus on other sectors.

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Robert Stavins: So I guess I would be even

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Robert Stavins: More defensive as an outsider of the Biden plan.

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Robert Stavins: And hence more skeptical about carbon pricing, because even if the democrats dude take both seats in Georgia, which is probably not the greatest bet to make

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Robert Stavins: It, they do take those seats in

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Robert Stavins: Georgia and therefore have a one vote margin and the Senate with the Vice President's tie breaking vote.

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Robert Stavins: Is that really going to enable a broad base carbon pricing initiative, I think back to the Obama administration when the Waxman marquis legislation couldn't even get a vote in the Senate floor and Democrats had 69 seats so

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00:20:41.790 --> 00:20:48.570

Robert Stavins: I you what you said about Senator Murkowski is ranked would nevertheless I would be, I guess a little less optimistic.

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00:20:48.930 --> 00:20:51.390

Jason Bordoff: Yeah, no I didn't. I didn't mean to express too much optimism, I

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Jason Bordoff: Hope springs eternal. I think I hope there are opportunities to have those conversations have that dialogue, you know, sometimes the window.

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Jason Bordoff: The policy window of opportunity in DC for something goes from impossible to inevitable really quickly.

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00:21:06.690 --> 00:21:17.280

Jason Bordoff: I'm not, I'm not betting on that but but i i'm just saying that there may be an opportunity over time, I think, more likely, the cooperation across the, as I said earlier, will happen on things like energy innovation and

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00:21:17.280 --> 00:21:28.770

Jason Bordoff: Technology with a pretty broad landscape. You look at 45 queue for carbon capture advanced nuclear as well as renewables and battery technology, but it'll have the administration incoming administration.

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Jason Bordoff: has set out a series of goals which are consistent with what is required by the science we should say

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Jason Bordoff: Which is the most ambitious climate agenda of any administration in history and the net zero electricity by 2035

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Jason Bordoff: is extraordinarily ambitious and what is needed. So you're going to need to think about a combination of investments, combined with regulations.

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Jason Bordoff: The existing authorities that they have and hopefully finding ways to work with Congress on things to put us on that trajectory

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Jason Bordoff: It's not going to be easy, but it is what climate math requires, and it's also what the rest of the world is going to expect. You know, I mean, no one knows better and kind of the international agreements will work. We're going to

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00:22:10.920 --> 00:22:20.460

Jason Bordoff: Go announced an intention to come back into Paris on day one, but that's just step one. And then, of course, we'll go to Glasgow and the world will expect a pretty ambitious.

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00:22:20.940 --> 00:22:30.090

Jason Bordoff: Nationally Turman contribution from the US. And so we're going to have to have a credible set of tools that we put on the table to demonstrate how we're going to get on a pathway that's consistent with that.

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00:22:30.750 --> 00:22:36.690

Robert Stavins: Well, in terms of it being credible i would i would also worried that you know you're the lawyer. I'm not. So you tell me

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00:22:37.080 --> 00:22:44.970

Robert Stavins: I would also worry about the regulatory approaches and not because they're not merited on because they're not necessary. You can't get statutory

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00:22:45.300 --> 00:22:50.790



Robert Stavins: Approaches which I think we all agree are, you know, more likely to remain in place and answer or better.

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00:22:51.300 --> 00:23:05.940

Robert Stavins: Because of the back of these 200 federal judges appointed by President Trump. Plus, more importantly, the six three conservative majority in the Supreme Court, which, from what I understand from some legal scholars, probably not from all

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00:23:07.020 --> 00:23:18.660

Robert Stavins: Is that that is going to make it much more difficult because these legal scholars are going to be giving much greater attention to the letter of the law, much less flexibility to the agencies.

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00:23:18.960 --> 00:23:30.960

Robert Stavins: The possibility is even raised of actually the chevron doctrine Chevron Chevron deference being reversed. And that's going to make a regulatory approach difficult or am I being too skeptical.

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00:23:31.350 --> 00:23:34.140

Jason Bordoff: No, I share that worry and you know I

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00:23:35.250 --> 00:23:41.790

Jason Bordoff: My colleagues here like Michael Jordan, who runs the same and center. And one of the leading environmental law experts shares that concern.

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00:23:42.720 --> 00:23:59.310

Jason Bordoff: We have a much more conservative judiciary. After four years of this administration, including but not limited to a six three Supreme Court, as you said, whichever one difference in there. And it's not just the EPA and the Clean Air Act, there may be a series of decisions that

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00:24:00.420 --> 00:24:12.240

Jason Bordoff: That that that limit, to some extent, the authority that federal agencies have and the administrative state has to take existing legislation and and and put in

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00:24:12.900 --> 00:24:26.670

Jason Bordoff: Use it to put in place regulations consistent with that. So I think that's a very legitimate concern. It doesn't mean you don't do that, but I think that's an important part of the effort. But I think the the legal risk.

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00:24:28.320 --> 00:24:37.590

Jason Bordoff: political risk is is there. I think the extent to which you have some investments in tech in Technic continued investments in clean energy technologies.

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00:24:37.920 --> 00:24:44.670

Jason Bordoff: That help to bring the cost of that down, like we started 10 years ago with a stimulus package, which helped to advance solar and wind technology.

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00:24:45.330 --> 00:24:57.120

Jason Bordoff: Making smart investments and putting other policies in place that lower the cost of pursuing alternatives for regulations, particularly powered of the power sector where we know there are alternatives to say cold.

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00:24:58.110 --> 00:25:13.410

Jason Bordoff: That I think helps to end defer to Michael Jordan, this, that, that helps that helps to improve the prospects of defending those regulations and improves the cost benefit analysis of them. So I think these things can complement one another as well.

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00:25:15.000 --> 00:25:20.430

Robert Stavins: The credibility. It is important, as you said a moment ago, Jason, obviously.

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00:25:21.450 --> 00:25:23.820

Robert Stavins: President Elect Biden on the first day.

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00:25:24.450 --> 00:25:33.720

Robert Stavins: Or maybe the second day will submit the papers to rejoin the Paris Agreement 30 days later, the United States is rejoined.

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00:25:34.200 --> 00:25:45.600

Robert Stavins: Countries around the world, in particular, our European allies will be jumping up and down the joy. I think they are any way about probably this potential new administration. This new administration.

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00:25:46.020 --> 00:26:00.690

Robert Stavins: Coming in, but as you also noted. That's the easy part. The hard part is coming up with a Nationally Determined contribution, that is, I assume, at least as ambitious as the Obama era. One was, but maybe more ambitious than that and

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00:26:02.010 --> 00:26:14.580

Robert Stavins: Will they be able to produce something that is sufficiently credible so that the European allies, and for that matter, the Chinese who were previously in the Obama years are great partner right before everything that's happened since

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00:26:16.560 --> 00:26:24.720

Robert Stavins: How they do that, what, what is it that the administration is going to come up with you anticipate for its Nationally Determined contribution.

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00:26:25.740 --> 00:26:26.100

Robert Stavins: In terms you

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00:26:26.250 --> 00:26:26.520

Jason Bordoff: Know,

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00:26:26.850 --> 00:26:29.040

Robert Stavins: Is it going to be like Obama or is it going to be beyond

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00:26:29.190 --> 00:26:42.360

Jason Bordoff: I think I think it will need to be more more more ambitious than that. I mean, that, that, you know, we will want to come back to the table and have constructive dialogue with the Europeans, obviously, the Chinese just put out a net zero 2016 target.

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00:26:43.620 --> 00:26:50.550

Jason Bordoff: And they will I think many will celebrate that the US is back of the table. One of the things that

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00:26:51.630 --> 00:26:57.870

Jason Bordoff: Really makes me excited and optimistic about the potential to make progress on climate under in the Bible administration.

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00:26:58.260 --> 00:27:04.620

Jason Bordoff: Is that he is. He has such deep experience in international affairs and foreign policy and take so seriously.

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00:27:04.890 --> 00:27:11.790

Jason Bordoff: The need to rebuild American leadership in cooperation with our allies in the world. As you know better than anyone. This is the most global of problems. It doesn't

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00:27:12.420 --> 00:27:18.270

Jason Bordoff: Every time contributes equally to the problem and 85% of the admissions come from outside the US. So we're not going to solve this problem.

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00:27:18.570 --> 00:27:26.130

Jason Bordoff: Unless we engage in and elevate the importance of climate change and all of our matters of foreign policy and diplomacy.

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00:27:26.730 --> 00:27:29.580

Jason Bordoff: So I think there will be a big effort to do that.

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00:27:30.210 --> 00:27:39.180

Jason Bordoff: But the expectations will be high and it will be fair for the Europeans to say we've been removed. We moved ahead, and we need everyone to be moving as ambitiously as we are.

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00:27:39.540 --> 00:27:48.120

Jason Bordoff: Again, driven by the reality of kind of how much inaction, we have seen for so many decades and how little time is left. If you take targets like one and a half or two degrees.

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00:27:48.720 --> 00:27:55.950

Jason Bordoff: Seriously, so, so I think the expectations will be high. I think the MDC ought to be, and can be ambitious with that set of

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00:27:57.270 --> 00:28:07.830

Jason Bordoff: set of tools that we have talked about investments and regulatory authorities investments in R and D working with Congress where that is possible.

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00:28:08.610 --> 00:28:21.840

Jason Bordoff: And a range of other range of other things that I should say just one more thing on that I think rejoining Paris is very some very important, important as a symbol as well as our international cooperation.

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00:28:23.280 --> 00:28:30.510

Jason Bordoff: It is only one piece of what needs to happen in terms of what it looks like to take climate change much more seriously.

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00:28:30.960 --> 00:28:39.720

Jason Bordoff: In all aspects of our foreign policy. And so, you know, there's a set of other tools you're well aware of from finally hopefully pushing it over the finish line, for he sees

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00:28:40.170 --> 00:28:51.180

Jason Bordoff: The investment in the Green Climate Fund, but going even beyond that, I think ambitiously that I wrote a piece recently about, you know, there's a lot of talk about not financing new coal in the world. But we're not even doing that yet.

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00:28:51.630 --> 00:28:58.380

Jason Bordoff: Even if we never built another new coal plant in the world. If you read the existing fleet of coal plants to be end of their normal economic life.

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00:28:58.800 --> 00:29:08.190

Jason Bordoff: You blow past your climate goals. We made a viable plan working with emerging economies that are seeing rapid rates of economic growth and energy us beyond what we are

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00:29:08.940 --> 00:29:16.410

Jason Bordoff: To think about how to phase out existing coal over time in ways that makes sense for those economies and for the investors who have invested in those projects.

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00:29:16.830 --> 00:29:23.340

Jason Bordoff: That's a hugely difficult policy problem. And I think it's one where we need to work collectively and take on some of these really big challenges.

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00:29:24.420 --> 00:29:30.480

Jason Bordoff: Working with other countries global agreements to reduce methane global cooperation on energy innovation and new technology.

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00:29:30.750 --> 00:29:44.850

Jason Bordoff: Incorporating climate more deeply into our trade policy across the world to facilitate expand opportunities for clean energy trade and sharing the knowledge and technology that's going to be all of that is really important to me to think ambitiously about

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00:29:46.530 --> 00:29:56.970

Robert Stavins: So we've now got we have about 200 participants and quite a few questions have come in. So I'm now going to turn to questions from our participants.

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00:29:57.510 --> 00:30:07.230

Robert Stavins: I probably won't be able to get to all of them. And I may combine some of them. But anyone who hasn't submitted a question I am checking them all out, so please feel free to add more questions.

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00:30:07.890 --> 00:30:21.840

Robert Stavins: And the first one is, how can one reconcile Biden's green greener position in general with his claim to support and enhance fracking in the United States.

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00:30:23.760 --> 00:30:43.770



Jason Bordoff: I guess I think what I heard him say in the campaign was we he's not banning it, which is not something that the federal government has the authority to do anyway. But the, the goal of the administration was to put in place a series of investments technologies policies to reduce demand for

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00:30:45.030 --> 00:30:56.070

Jason Bordoff: For oil and gas over time in a way that's consistent with meeting the Paris goals, which is why he talked really ambitiously. I mean, I'm not speaking for the campaign. It's just what I think we heard him say in that last debate, for example.

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00:30:56.670 --> 00:31:03.720

Jason Bordoff: Investments in electric vehicles and fuel economy standards and all the rest, so that there is with the demand for that.

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00:31:06.210 --> 00:31:07.170

Jason Bordoff: The demand for that.

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00:31:08.700 --> 00:31:17.190

Jason Bordoff: Goes down as we move to a clean energy economy. I suspect you'll also see, you know, efforts to to regulate production.

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00:31:17.640 --> 00:31:18.420

Jason Bordoff: And much

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00:31:18.450 --> 00:31:25.830

Jason Bordoff: Much, much stronger way. I mean this administration has rolled back rules on methane things that even so many oil and gas companies have objected to

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00:31:26.310 --> 00:31:32.970

Jason Bordoff: Was interesting that we just saw the French Government block in investment by a French company energy

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00:31:33.870 --> 00:31:40.800

Jason Bordoff: In the US LNG project because of concerns by the government, that the rate of methane leakage in the US was too high.

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00:31:41.400 --> 00:31:51.090

Jason Bordoff: So here's an example where the rollback of regulations was actually hurting their industry was supposed to help because the rest of the world is expecting higher standards.

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00:31:51.450 --> 00:31:59.550

Jason Bordoff: And expecting people to hold themselves to higher standards and if we're not able to meet that in terms of our own production then then it's kind of

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00:32:01.380 --> 00:32:07.140

Jason Bordoff: We're going to fall behind. Particularly as you see, say, the European Union talk about putting carbon border adjustments in place and

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00:32:08.430 --> 00:32:17.010

Jason Bordoff: Wanting to make sure that what the importance that are coming into the European Union are from places that have as ambitious climate policy says it does

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00:32:17.370 --> 00:32:31.890

Robert Stavins: And in terms of fracking, I would assume that the incoming Biden administration will continue what the Obama administration was doing and that is to take a very careful look and regulate protect

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00:32:33.240 --> 00:32:50.700

Robert Stavins: Water quality in terms of surface water quality impacts as a result of the disposal of the material that chemicals in the water that's used in the fracking process. So there will be environmental safeguards in place, I would assume as the Obama administration was very enthusiastic about

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00:32:51.690 --> 00:32:54.270

Jason Bordoff: I would imagine the regulations on production will be

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00:32:55.590 --> 00:33:10.800

Jason Bordoff: Incredibly strict as as as needed. The administration has said no new incoming administration said no new leasing on federal lands and waters where it does have have authority. So I expect. That's right. I think it may even be stronger. I'm not sure.

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00:33:11.430 --> 00:33:18.750

Robert Stavins: So here's an interesting question. Like, like all questions, including my own, they always come particular perspective. So here is a

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00:33:19.440 --> 00:33:29.790

Robert Stavins: Question from a Canadian perspective. And by the way, as an all webinars. I never mentioned the name of the person who submitted it unless they actually stayed. Oh, you could say my name.

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00:33:30.480 --> 00:33:44.190

Robert Stavins: So this but this question is how do you perceive the tension between the push for renewables by the Biden administration and the protection of sentiment that may arise in the USA.

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00:33:45.060 --> 00:33:57.390

Robert Stavins: More specifically, are the prospects better or worse for Canadian hydro electricity exporters' through the United States to the United States. So this comes from Montreal.

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00:34:00.210 --> 00:34:08.250

Jason Bordoff: I don't know the answer to that. I mean, I think, you know, we're going to need all the clean energy, we can get. And there's obviously

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00:34:08.580 --> 00:34:17.670

Jason Bordoff: The question I assume applies to certain areas where state policy may be as important as federal policy and thinking about, say what New York State is doing with hydro from

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00:34:18.180 --> 00:34:27.510

Jason Bordoff: Quebec. So I do think it's right that there. If you look on the island transition website. It is notable that the website.

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00:34:28.350 --> 00:34:43.590

Jason Bordoff: In my view says there are four priorities for the country and climate change is one of one. That alone is incredibly important. And then when you look at the agenda. He's mapped out, it is clear that, as he just said many times, and just watching it from afar.

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00:34:44.880 --> 00:34:54.390

Jason Bordoff: He sees a connection between building a clean energy economy and also rebuilding the US economy and creating jobs in growing industries for the future. So

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00:34:55.590 --> 00:35:05.130

Jason Bordoff: But, but the if you take a target like net zero by 2035 for electricity seriously the pace at which we are going to need to grow.

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00:35:05.730 --> 00:35:23.040

Jason Bordoff: Clean energy zero carbon energy is so rapid that i don't i guess i don't think of it as a zero sum trade off. I think we can generate a lot of economic activity and zero carbon technologies in the US and still have trade in zero carbon energy electricity sources like that.

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00:35:24.090 --> 00:35:34.680

Robert Stavins: Here's a question that I hear a lot and it's come in and that is as the last decades push for American natural gas, but I think that's being

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00:35:35.070 --> 00:35:44.790

Robert Stavins: Asked what MPs and other countries as well as the push for American natural gas diverted capital from renewable energy investment and the laid the transition

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00:35:46.830 --> 00:35:48.330

Jason Bordoff: Well there's been a lot of investment.

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00:35:49.680 --> 00:35:55.080

Jason Bordoff: In renewable energy, we've grown renewable energy incredibly quickly and

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00:35:56.640 --> 00:36:02.850

Jason Bordoff: And and i think i think the question is getting at something which is which is really important, which is, you know, the

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00:36:05.550 --> 00:36:11.040

Jason Bordoff: Record taking taking a target like net zero electricity by 2035 seriously.

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00:36:12.060 --> 00:36:19.350

Jason Bordoff: If you look at the modeling for example Princeton's just come out with some great work on what net zero by 2050 might look like for the US economy.

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00:36:19.680 --> 00:36:27.870

Jason Bordoff: And how you get to net zero electricity you see gas with carbon capture playing some role for firm for firming up load capacity.

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00:36:28.740 --> 00:36:45.120

Jason Bordoff: But much less gas use in the electricity sector, and we need to grow renewable energy, much more quickly as well and maintain the existing fleet of zero carbon nuclear power, those start to retire, that becomes an additional whole you need to dig out of

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00:36:46.530 --> 00:36:57.210

Jason Bordoff: So obviously the role of gas looks different in different places. It's, you know, different electricity than and buildings, then in then industry and different in emerging economy like South Asia than in the US.

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00:36:57.810 --> 00:37:06.000

Jason Bordoff: But, but I think you see signs just wasn't San Diego or want another another California municipality that

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00:37:06.360 --> 00:37:16.140

Jason Bordoff: mandate that new new home construction not have a gas and be done with electrification that if we're going to meet our climate goals. We're going to need to electrify many parts of the

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00:37:16.500 --> 00:37:21.660

Jason Bordoff: Energy System that are not electric today not. We can't electrify all of them. So we have talked about other technologies to

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00:37:22.950 --> 00:37:24.570

Jason Bordoff: Hydrogen and others.

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00:37:25.860 --> 00:37:41.550

Jason Bordoff: But we can electrify many of them. And then we need to create that electricity with zero carbon electricity. So that means we're going to be using zero carbon energy and a much smaller role, although, again, there may be some CCS if you look at the modeling for how we get there, I think.

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00:37:42.210 --> 00:37:46.770

Robert Stavins: Let me turn back to the international domain. Here's a question that's come in from China.

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00:37:47.880 --> 00:37:57.510

Robert Stavins: Two part question. Will the US rejoin the Paris Agreement that you've already answered. But the second part is, will the United States cooperate with China.

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00:37:57.780 --> 00:38:04.410

Robert Stavins: And the way I would interpret that question is during the Obama administration on climate change policy.

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00:38:04.890 --> 00:38:13.290

Robert Stavins: The partnership between China and the United States was absolutely fundamental to the achievement of eventually the Paris Agreement.

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00:38:13.830 --> 00:38:23.790

Robert Stavins: And in so many other ways as well within the climate realm, we've seen since then, of course, a tremendous hostilities developing not

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00:38:24.150 --> 00:38:33.660

Robert Stavins: Armed hostilities verbal hostilities trade wars between the two countries. What do you anticipate is going to happen going forward between China and the United States.



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00:38:34.380 --> 00:38:47.970

Jason Bordoff: Yeah, I know. It's an incredibly important question because as I said earlier, you don't solve the climate problem without international cooperation, it is a fundamental global problem and the common problems raises free rider concerns.

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00:38:49.140 --> 00:38:57.090

Jason Bordoff: But, but they so the one perhaps the most important bilateral relationship in that is the US, China relationship. It is also

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00:38:57.570 --> 00:39:09.450

Jason Bordoff: Separate from climate, one that is among the most strained right now. And I think that's going to continue to be true whether President Trump had one or as as as President, Vice President Biden has he did

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00:39:10.470 --> 00:39:21.750

Jason Bordoff: In either case, the US and China. We're going to have a very contentious relationship. We're putting certain sanctions being put in place. Now there's like a tit for tat.

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00:39:23.100 --> 00:39:34.260

Jason Bordoff: Thing where you know you close the console may close the console it and you especially during those the makes belly journalist and over technology and IP and range of other issues.

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00:39:35.340 --> 00:39:48.180

Jason Bordoff: Moving into a mode of competition and potentially confrontation with China is a risk at the same time that we have to cooperate with them on on on climate. So I'm hopeful that

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00:39:49.950 --> 00:39:56.850

Jason Bordoff: China does take climate change seriously, I think it is encouraging although obviously we need to see what's in the 14 five year plan to make sure its real

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00:39:57.690 --> 00:40:13.710

Jason Bordoff: That she has come out with a 2016 net zero target that that will want to be on both sides of desire to cooperate on climate, even while those other difficulties in the relationship need to be managed moving forward, which is which is not going to be not going to be easy.

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00:40:14.430 --> 00:40:28.290

Robert Stavins: So here's a natural and specific follow up to that question. This is from someone else will bite and remove tariffs on solar panels and try to get China to remove tariffs on us liquefied natural gas.

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00:40:29.640 --> 00:40:32.970

Jason Bordoff: Yeah, I don't know. I mean, I should. I want to be really clear like I

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00:40:34.020 --> 00:40:38.730

Jason Bordoff: can't speak for the administration. I'm not not part of it. So,

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00:40:39.540 --> 00:40:41.220

Robert Stavins: But as an observer. You do your

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00:40:41.640 --> 00:40:54.780

Jason Bordoff: So I'm sharing my like on the past questions I'm sharing what I've heard the campaign saying the past I have not heard them speak directly to that question. So I just, I just don't know the answer to that. I yeah

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00:40:55.950 --> 00:41:02.190

Robert Stavins: So another specifically focused question. This may be from Japan. It's hard to tell.

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00:41:03.630 --> 00:41:10.740

Robert Stavins: How will bite and support nuclear without advanced nuclear 2035 goal look impossible.

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00:41:12.000 --> 00:41:20.430

Jason Bordoff: Yeah, as I said, I mentioned earlier that I mean I don't think there's a lot of expectation that we're gonna see a lot of new nuclear build in the US.

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00:41:21.450 --> 00:41:33.870

Jason Bordoff: With conventional technology. I do think that thinking about incentives to prevent the early retirement of our nuclear fleet which is struggling to compete with cheaper renewables and cheap natural gas.

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00:41:35.010 --> 00:41:42.060

Jason Bordoff: Is important if you want to meet a net get on a pathway that's consistent with net zero electricity by 2035

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00:41:42.840 --> 00:41:49.230

Jason Bordoff: Investment in advanced nuclear technology. I do think should be part of the broad R and D portfolio, because I think there are promising.

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00:41:49.440 --> 00:41:57.900

Jason Bordoff: Technologies and opportunities there that might really be transformational for getting too deep decarbonisation. And I also think from a national security standpoint.

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00:41:58.890 --> 00:42:03.270

Jason Bordoff: I would expect to buy an administration would would share a concern, but

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00:42:03.690 --> 00:42:17.550

Jason Bordoff: That the US has really seated some some degree of leadership in international nuclear power, China and Russia have taken kind of a leadership role building much of the world's new nuclear plants, setting the norms for

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00:42:18.720 --> 00:42:29.460

Jason Bordoff: Setting setting the norms for the nuclear sector around the world. And I think that is a concern from the US national security standpoint. So what it looks like that nuclear cooperation agreements.

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00:42:30.030 --> 00:42:48.360

Jason Bordoff: That allow for continued investment, where it makes sense in zero carbon nuclear power while taking very seriously. All the Non Proliferation and other concerns, one might have about that I think needs to be and will be proud expect a priority for the for the administration.

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00:42:49.860 --> 00:42:55.860

Jason Bordoff: I should say, by the way, and I just made that I just thought of something as I was commenting on the struggle. They have competing with a cheap gas.

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00:42:56.520 --> 00:43:11.430

Jason Bordoff: Which is the just flagging article that was in the Financial Times a day or two ago, which I thought was important because it something I've been watching, which is the expectation that natural gas prices in the US may increase meaningfully in the next several months.

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00:43:11.610 --> 00:43:14.190

Jason Bordoff: It was the consequences consequences of that.

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00:43:15.150 --> 00:43:26.040

Jason Bordoff: A lot of coal has retired, but not all of it. There's still some where the capacity is just low, you know, we could see gas too cold. Switching ironically after the Trump administration was able to do almost nothing.

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00:43:26.880 --> 00:43:31.890

Jason Bordoff: To support cold, despite its rhetoric called continue to decline driven by market forces.

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00:43:32.820 --> 00:43:45.600

Jason Bordoff: That as a Biden administration comes in call has an uptick both because of the recovery from coronavirus economic downturn and also because more expensive gas might incentivize some cold to ramp up again.

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00:43:47.160 --> 00:43:54.900

Jason Bordoff: That's that that could be happening over the next six months or so. And it's just a reminder of the fact that, you know, despite some of the rhetoric one hears

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00:43:55.770 --> 00:44:08.280

Jason Bordoff: From someone on the right market forces don't address externalities. They don't decarbonize the economy. They may in some cases move in that direction as if cheap gas allows for cold to gas switching

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00:44:08.850 --> 00:44:15.090

Jason Bordoff: But that's not inevitable. And just a reminder of why we need government policy to currency as you know better than anyone.

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00:44:16.020 --> 00:44:25.260

Jason Bordoff: To correct for market failures address externalities and putting replace regulations to continue to drive toward a net zero economy, whatever the price of any particular commodities.

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00:44:25.650 --> 00:44:35.850

Robert Stavins: And even if these higher gas prices that he he is just talked about is, you mentioned, even if those don't encourage more investment new capacity.

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00:44:36.450 --> 00:44:46.170

Robert Stavins: Or delay retirement of cold, they'll certainly increase the dispatch on to the autism and coal fired sources compared to natural gas, etc. As Airbus

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00:44:47.430 --> 00:45:06.450

Robert Stavins: Another question, hands come in back on Canada and that is an interesting one, which is what about pipeline expansion, I suppose, this would be referred to the Keystone XL, as well as the permitting for Dakota accidents, um, any thoughts on that for the next

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00:45:07.500 --> 00:45:09.510

Robert Stavins: Two to four to eight years.

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00:45:10.590 --> 00:45:19.260

Jason Bordoff: Well, I think that by any I recall hearing the Biden administration say that they were opposed to the those pipelines.

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00:45:20.700 --> 00:45:21.420

Jason Bordoff: So,

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00:45:22.530 --> 00:45:39.180

Jason Bordoff: I suspect it will be I think any investment in new infrastructure would, would you would need to see the test would be like, is this summit is this consistent with what we have set our goals are, which are a net zero economy by 2050 and let's hear about 2035

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00:45:40.350 --> 00:45:49.200

Jason Bordoff: I think when it comes to the cross border pipelines, you've talked about the administration, I recall and said that they were opposed to those pipelines.

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00:45:50.280 --> 00:45:55.110

Robert Stavins: So we haven't yet had a question that was from the perspective of developing countries.

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00:45:55.740 --> 00:46:02.280

Robert Stavins: I guess, other than China, but not clear who not what most of us were identified today as a developing country but here's why that is definitely

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00:46:02.730 --> 00:46:14.820

Robert Stavins: a developing country perspective. And the question is, what do you think the effect on developing nations will be when it comes to the oil and gas industry, particularly LNG of this change ministrations

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00:46:17.160 --> 00:46:24.690

Jason Bordoff: The, you know, the kind of what I said a minute ago. I think when you when you think about

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00:46:27.480 --> 00:46:44.070

Jason Bordoff: Investments in investments in oil and gas. The we can't continue to invest in, in, in, it can't continue to invest in a part of the economy that that we know has to

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00:46:45.300 --> 00:46:48.330

Jason Bordoff: Has to shrink quickly.

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00:46:49.380 --> 00:47:06.360

Jason Bordoff: If you're serious about, you know, net zero targets. And so those are the targets that not only the administration has supported but but the but climate science is just tells us is what's required if we're, we're going to take targets like one and a half or two degrees. Seriously.



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00:47:07.410 --> 00:47:14.520

Jason Bordoff: I on the specific topic. And so it's a little related to the question you asked a second ago on the specific topic of Bella. And gee,

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00:47:16.500 --> 00:47:31.080

Jason Bordoff: I, I, I think the market is such now that it would surprise me if there were lots of new applications from the Department of Energy to export LNG just because it's

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00:47:31.110 --> 00:47:40.500

Jason Bordoff: It's, it's, but as we said a minute ago us gas prices rising. There's a lot of supply out there a lot of places where new supply is coming from.

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00:47:40.980 --> 00:47:49.830

Jason Bordoff: Prices overseas have fallen quite substantially from where they were when say I worked in the president obama administration, so

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00:47:50.580 --> 00:48:03.840

Jason Bordoff: I think any project that has any viable chance of possibly moving forward, probably already has their Department of Energy permits. So I be surprising if there were a lot of new people asking to invest billions of dollars and LNG projects in the US.

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00:48:04.650 --> 00:48:15.090

Robert Stavins: So as I mentioned, I don't name the names of questioners unless it's obvious to me for some reason they don't mind. And I think this is one that is the case, someone who you know well

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00:48:15.930 --> 00:48:28.290

Robert Stavins: Bill Hogan, my colleague here at, at Harvard says taking Rob's framing that a carbon price is necessary but not sufficient. What carbon price would you endorse.

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00:48:28.890 --> 00:48:38.850

Robert Stavins: And how or why is this consistent with net zero electricity by 2035 and in this I would encourage you to bring into your answer.

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00:48:39.390 --> 00:48:50.910

Robert Stavins: The social cost of carbon. And what do you think is going to happen with the social cost of carbon dramatic changes from Obama to the Trump years in terms of the calculation. I'd love to hear about that because it may relate to this.

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00:48:51.870 --> 00:49:00.450

Jason Bordoff: I think the social graphs carbon was an incredibly important effort. And I think we've learned a lot. And there's been a lot of good additional work done that.

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00:49:01.080 --> 00:49:07.950

Jason Bordoff: Helps to suggest reasons why the even those estimates of around \$50 a ton are probably too low.

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00:49:08.700 --> 00:49:14.490

Jason Bordoff: Including a range. Just how much uncertainty there is around it. So I think the first thing to say is the

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00:49:15.030 --> 00:49:27.420

Jason Bordoff: The, the, the idea that we know with precision what the social damages from a ton of carbon are I think we should have a pretty large sense of humility and grain of salt in believing that

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00:49:27.840 --> 00:49:33.930

Jason Bordoff: Which would mean you know if you knew with certainty. The what the social cost of carbon was you would say it's

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00:49:34.200 --> 00:49:40.530

Jason Bordoff: The damage society is \$50 and if it costs \$51 to not put a ton of see of doing the shouldn't do it. But the ton of CO2 in the air.

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00:49:40.980 --> 00:49:51.660

Jason Bordoff: That's probably not the right way to think about it, given how much uncertainty there is around what the impacts of climate would be in the importance of having a pretty high degree of risk aversion. I think

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00:49:51.960 --> 00:50:00.660

Jason Bordoff: In making sure that we don't set ourselves up because this is difficult, a difficult problem to roll back as you know once a ton of CO2 is up there at phase of their really long time.

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00:50:01.860 --> 00:50:11.850

Jason Bordoff: You want to be really careful and err on the side of not making this problem or. So I think, you know, we've done a lot of work on that at the center of global energy policy, my colleague Noah Kaufman.

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00:50:12.570 --> 00:50:16.320

Jason Bordoff: Thinking about a range of different carbon tax design options.

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00:50:16.710 --> 00:50:27.420

Jason Bordoff: But also how to marry those with a set of other policies. So the question of what kind of carbon price you would want would look different in a world where you were also using investments to help support.

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00:50:28.170 --> 00:50:36.300

Jason Bordoff: low carbon technologies where you were using potentially some other standards for certain sectors, because we know a carbon price is going to do a lot of most of its work.

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00:50:36.600 --> 00:50:47.190

Jason Bordoff: In at least in the in the in the medium term in the in the power sector and much more than another sector. So you may want to rain and you may want other policies to kind of target some of those other sectors.

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00:50:47.670 --> 00:50:58.020

Jason Bordoff: And then have it rise over time and, sort of, you know, in some sense you you wrote about this, as you said, when we met 15 years ago but you know carbon tax cap and trade price versus quantity certainty.

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00:50:58.860 --> 00:51:12.240

Jason Bordoff: We do want some quantity certainty and so thinking about a hybrid where you we published a paper recently. If you were to map out net zero by 2040 by 2015 2016 what carbon price derives from that and

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00:51:13.050 --> 00:51:24.390

Jason Bordoff: Developing your carbon price with with a sense of what what do we think the social cost of carbon is with a high degree of uncertainty, but also what would be consistent with the kind of reduction targets that we think are needed.

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00:51:25.080 --> 00:51:35.430

Jason Bordoff: To meet our climate goals and then and then finding some, you know, finding where where the overlap is in that and and and my colleague, Noah, sort of, you know, map that out with prices that

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00:51:36.180 --> 00:51:44.370

Jason Bordoff: Could start around 50 but but but can rise, you know, meaningfully from that point to 100 \$200 a time over time.

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00:51:45.330 --> 00:51:55.230

Robert Stavins: So here's another question from a colleague of mine who I believe will not mind being identified. He's also a friend and colleague of yours, Joe Aldi

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00:51:56.280 --> 00:52:05.850

Robert Stavins: And Joe after thanking you for joining us, which he does. He then asked whether or not we're likely to see more use.

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00:52:06.840 --> 00:52:13.740

Robert Stavins: By the US and other countries of trade to leverage more ambitious climate change policies, he takes note of that.

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00:52:14.070 --> 00:52:30.030

Robert Stavins: N G delayed this LNG contract last month with the US supplier by citing concerns over us methane emissions and the Trump administration's efforts to roll back the Obama era methane regulations. So do you anticipate, we're going to see more of that sort of thing.

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00:52:31.200 --> 00:52:44.160

Jason Bordoff: I do. And you know, I wrote a piece on the Financial Times in March or April or I forget when basically kind of saying there is a piece, calling for Texas regulators to put a flaring tax in place.

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00:52:45.000 --> 00:52:48.840

Jason Bordoff: Because there's, I think, no excuse for high flaring rates environmentally

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00:52:49.110 --> 00:52:57.720

Jason Bordoff: Or economically, but also in terms of the industry's socialized and stop rate. And as I said in that piece that it's actually in their own interest because the rest of the world.

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00:52:58.020 --> 00:53:07.890

Jason Bordoff: Is going to increasingly expect us operators to perform at the highest level and gave the example of how European regulators have talked about potentially

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00:53:08.730 --> 00:53:18.660

Jason Bordoff: You know, differentiating molecules that come into the European Union based on their carbon intensity and as Joe said I mentioned earlier, you know, we saw that example which I thought was important.

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00:53:19.350 --> 00:53:35.370

Jason Bordoff: Signal in one France just it. And I think there's going to be more of that you're going to see countries that copy regions, whether it's the EU or countries that are taking ambitious climate action. Say we expect others to do the same thing. And if you're operating at a lower standard

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00:53:36.840 --> 00:53:47.490

Jason Bordoff: We're going to need to set a level playing field for our domestic producers in our domestic industries and have some sort of carbon border adjustment. I would like the US to be part of that.

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00:53:48.150 --> 00:53:55.080

Jason Bordoff: Dialogue and cooperate with people that we have strong climate policy in place. Domestically, we should also level the playing field and use

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00:53:55.590 --> 00:54:03.120

Jason Bordoff: Border adjustments to encourage others to improve their performance and protect our own domestic workers and industries of others.

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00:54:03.480 --> 00:54:13.890

Jason Bordoff: Don't and I think I just want to say, I think the use of trade as a tool can go way beyond that. Right. So it's not just punitive. It can also be

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00:54:14.520 --> 00:54:25.290

Jason Bordoff: Cooperative mechanisms where the environmental exceptions within the article 20 gap can be broadened to allow people to pursue more ambitious climate and environmental

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00:54:25.680 --> 00:54:38.160

Jason Bordoff: domestic policies where you can work with countries and bilateral trade agreements to expand clean energy trade and investment and cooperation on technology. So I think international trade is actually an important

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00:54:38.730 --> 00:54:47.100

Jason Bordoff: Area where an administration can work collaboratively with other countries, we know that if you're serious about, you know, deep decarbonisation

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00:54:47.670 --> 00:54:52.410

Jason Bordoff: We're going to need huge amounts of clean energy trade around the world countries that are really good and

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00:54:52.800 --> 00:55:01.020

Jason Bordoff: Producing cheap batteries and solar panels emerging technologies we're going to need a lot more trade in those technologies around the world as well as

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00:55:01.770 --> 00:55:13.560

Jason Bordoff: New new fuels that may not exist yet. We have countries. The now that are investing to become green hydrogen suppliers of tomorrow. And then you'll might see large trade in low zero carbon fuels.

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00:55:14.520 --> 00:55:21.420

Jason Bordoff: We're going to need more of that. And I think we need the trade regime to kind of catch up and help to incentivize it not not be a barrier to it.

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00:55:22.140 --> 00:55:27.330

Robert Stavins: So we're almost out of time. So if you can try to address this very good question. Briefly.

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00:55:29.670 --> 00:55:36.180

Robert Stavins: Then is, is, you know, Jason. There are economists and this question comes from Europe and perhaps so many economists

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00:55:37.650 --> 00:55:46.620

Robert Stavins: economists who are very, very skeptical of the Paris Agreement. In fact, I find any kind of us in Europe, whenever I'm there are very skeptical about the Paris Agreement.

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00:55:46.980 --> 00:55:58.620

Robert Stavins: And are much more disposed towards the climate club approach which many years ago. Your Columbia colleague Scott Barrett wrote about. And of course, more recently, and very prominently Bill Nordhaus

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00:55:58.890 --> 00:56:14.250

Robert Stavins: And Yale has written about that. So the question is, could the US and I'm gonna share a word could, but put the US lead a climate Club type approach or more effective climate mitigation. And if you could just read this, please.

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00:56:15.240 --> 00:56:21.150

Jason Bordoff: Yeah. No, I'd love to hear your thoughts about it too and Josie and others that are on the, on the, on the zoom

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00:56:22.440 --> 00:56:35.250

Jason Bordoff: It really interesting idea that I talked with Scott and others a lot about, and it certainly is one area, you could pursue. I mean, it kind of relates a little bit to what we just talked about the line between border adjustments to level the playing field.

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00:56:35.910 --> 00:56:37.560

Robert Stavins: Very much as about border region as

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00:56:37.800 --> 00:56:45.360

Jason Bordoff: Well, but but it. But in some sense going much further where it's not just leveling the playing field, but it's intentionally punitive to incentivize people

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00:56:45.840 --> 00:57:00.660

Jason Bordoff: To do things that their domestic political system won't support my colleague here at the center, Richard nephew, who's an expert on sanctions, you know, has written quite a bit about his concern and he's one of the leading experts on lead the iran. Iran sanctions process.

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00:57:02.250 --> 00:57:06.930

Jason Bordoff: The is concerned, as jack Lew is also the former treasury secretary was also at Columbia.

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00:57:07.230 --> 00:57:23.910

Jason Bordoff: Have written together about their concern about the overuse of sanctions as a tool of diplomacy and economic statecraft. So, it is it is a tool that can have a lot of impact. It can also have some unintended consequences and the paper Scott wrote recently, you may have seen was sort of

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00:57:25.050 --> 00:57:37.530

Jason Bordoff: That and his concern that what Nordhaus doesn't fully account for is the response is retaliation and escalation. And so I do think while there. There's a lot of interesting

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00:57:38.070 --> 00:57:46.380

Jason Bordoff: It's a very interesting idea for how you can come together with a set of countries and then encourage others and really force others.

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00:57:46.860 --> 00:58:03.390

Jason Bordoff: to escalate their ambition, but we need to think really carefully about what the what happens after that and how they respond to and whether that cause of sort of a breakdown if much of the training system that we just said is so important and necessary to advance trade in these technologies.

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00:58:03.750 --> 00:58:15.330

Robert Stavins: Right. I think that's the right concern. Also, I should note that in build more houses analysis. The, the, the level of sanction of border adjustment that is required to do the job.

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00:58:16.140 --> 00:58:20.730

Robert Stavins: Is not one that is simply a carbon, Tara. It's not just on the carbon intensity of carbon intensive

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00:58:21.450 --> 00:58:29.760

Robert Stavins: Goods and services. It's across the economy. So there is a real question of the trade off of 40 years of developing the World Trade Organization.

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00:58:30.030 --> 00:58:42.240

Robert Stavins: And the international trade regime quite threatened during the last 44 years, I should say, and addressing climate change through a, an approach outside of the UN outside of what is now the Paris Agreement.

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00:58:43.260 --> 00:58:49.080

Robert Stavins: With that, because we're out of time. Thank you very much. Jason for taking time to join us today.

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00:58:49.650 --> 00:58:52.500

Jason Bordoff: Yeah, thank you. It's good to spend time with you all, thanks for the invitation.

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00:58:53.220 --> 00:59:04.770

Robert Stavins: So our guest today has been Jason board off. He's a professor of professional practice at Columbia University, where he directs the center on global energy policy.

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00:59:05.220 --> 00:59:24.000

Robert Stavins: I hope you'll join us for the next episode of conversations from the Harvard project on climate agreements. Remember, you need to register for each of the webinars in this series separately via zoom. Finally, I'm your host, Rob Stephens. Thanks for joining us.