TRANSCRIPT
Environmental Insights
Guest: David Hone
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David Hone: The industry hasn't changed dramatically in my career. It's broadly an oil and gas industry where I started and it's an oil and gas industry today, 40 years on, right. But I think of somebody starting in Shell today, who might be leading the company in 30 years time. And if you look at the commitments that Shell is making around its future and around the need to be at net-zero emissions in around 2050, that person, whoever he or she may be is going to be leading a company that looks very different from the one today.

Rob Stavins: Welcome to Environmental Insights, a podcast from the Harvard Environmental Economics Program. I'm your host, Rob Stavins, a professor at the Harvard Kennedy School and director of the Environmental Economics Program and our Harvard Project on Climate Agreements.

Rob Stavins: I think it's fair to say that there are some environmental advocates, at least in the United States, who would consider the oil and gas industry to be more or less the moral equivalent of tobacco companies, simply out to maximize profits without consideration being given to broader social implications of the use of their products. In addition, many such critics would paint the industry, the oil industry, with a broad brush, not considering the ways in which many companies may differ from one another.

Rob Stavins: I think that our guest today, David Hone is a prime example of a somewhat different reality than that. He's been working in the oil industry for some 40 years, where for the past 20 years, two decades, he's been focused exclusively on addressing global climate change. In fact, David's title at Shell International is Chief Climate Change Advisor. In addition, he's a board member and former chairman of the board of the International Emissions Trading Association and a board member of C2ES, the Center for Climate and Energy Solutions. David, welcome to Environmental Insights.

David Hone: Well, thank you Rob and thanks for having me on your podcast.

Rob Stavins: It's great to have you. I'm very interested of course, to hear your impressions of the response of the oil and gas industry to the threat of climate change, as well as your views beyond that on various elements of climate change policy nationally, internationally. But before we talk about that, I think our listeners are going to be interested to know how you came to be where you are and where you've been. And when I say go back, I do mean go way back. Where did you grow up?

David Hone: Well, in quite a few places actually, I was born in Australia and in the state of Victoria, but my dad was in the Army. And so at least up until high school, we lived in a number of places in Australia in what was then called Malayas. So you can guess I was pretty young and in Vientiane in Laos, where he was in the Australian Embassy.

Rob Stavins: And so primary school and high school and college were in some of those locations?

David Hone: So primary school was spread amongst those locations, including an American school in Laos because they had a very large embassy there. And then high school was in Adelaide, in South Australia. And university was at the University of Adelaide, again in South Australia, because in Australia most people, or at least then tended to go to universities in their hometown rather than the US and the British model where they travel somewhere else.

Rob Stavins: And what was your major field of study in college?

David Hone: Chemical engineering, which was a sort of a natural for going into the oil and gas industry.

Rob Stavins: So you thought about even before you graduated while you were in college, you were picturing going into the oil and gas industry?

David Hone: Australia, I think at the time was a very vocationally-oriented sort of push into university. People didn't just go in and read something. They really went in with a view to where they were going. I would guess at the time I think the oil and gas industry was certainly something that I looked at, the chemicals industry, which company like Shell has within it. And of course in Australia, not that I had made any decisions, but the mining industry looked pretty interesting because it was a big employer of chemical engineers.

Rob Stavins: And what was your first job out of a college?

David Hone: So the first job was in Geelong in Australia. So that's just South of Melbourne. Shell has a refinery there. And it was as a refinery engineer. And then that led to sort of a more international career with Shell because I was off to the Netherlands within a couple of years.

Rob Stavins: And in the Netherlands, were you still working in refinery engineering or had…

David Hone: Yes. So the first sort of 10 years of my career was in refinery engineering and refinery, and then it sort of boarded into refinery supply and economics, which was an entree into oil trading, which I ended up in London as an oil trader for a number of years.

Rob Stavins: How long were you an Oil Trader in London?

David Hone: I was in that area between trading and shipping for about 12 years, and I had a pretty interesting time. We had things like the first Gulf War, was when I was an oil trader and then the enormous volatility in the market within days and over weeks. So it was a very interesting time and I think it was that time in oil trading that was one of the sort of draws into the climate world because back in 2001, it was really sort of gearing up for a carbon trading world.

Rob Stavins: I see. So how did you actually then wind up working on climate change at Shell? Did you make a request? Did someone come to you?

David Hone: No. So Shell has a job market internally and I was keen actually to get a job in the sort of the central part of the company to get more of an idea of how the company worked, what the hell how the company's set of strategy. And this job came up as it was called, then Group Climate Change Advisor. And it was sitting in with the corporate center where they looked at strategy. The issue itself was one that I'd had some interest in, but I'm not the sort of environmentalist in that sense. I was an engineer. But the issue was interesting, it was in the right place. And so I applied for that job and I think coming from a trading environment, and imagining that with the Kyoto Protocol, we were heading into a very trading-based world around carbon that I was a good candidate for the job. And I got it.

Rob Stavins: Can you explain to us what is the relationship between what I hear Shell International, Royal Dutch Shell, and then Shell USA, for example?

David Hone: So Royal Dutch Shell PLC, which is a UK company but headquartered in the Netherlands, just to start the confusion at the top, that is the parent company. And underneath that sits numerous companies, some of them like Shell International, which holds a number of the corporate center functions like strategy, the scenarios team and so on.

Rob Stavins: And that's where you're housed. Is that correct?

David Hone: And that's where I'm housed. Yep. And then of course, there's a number of country entities, like Shell Australia, which is where I started, Shell UK, Shell Netherlands. So even though we're up housed in the Netherlands as Royal Dutch Shell there's still a Shell Netherlands company, which is where you will find the refining interests for instance in Shell. And then Shell Oil is the USA country entity. And each of those country entities are headed by a country chair and there's a US country chair and UK country chair and so on. But Shell is actually made up of along lines of business. So there's a downstream business that encompasses for instance, all of the global refineries, irrespective of which country they're in. So that's the sort of structure of Shell.

Rob Stavins: But this is a single company.

David Hone: Yes.

Rob Stavins: And so on something like climate change policy, for example, what you're working on, if you developed some policy, Shell International, does that mean that that's also the policy for Shell Oil in the USA and everywhere else? Or is it not that simple?

David Hone: No, it's pretty much that simple.

Rob Stavins: I see.

David Hone: There's always some nuance because, for instance, the carbon pricing message, which is a fairly simple one and something that Shell has developed over 20 years or more as being an advocate for a carbon pricing systems or system, you've got to tailor that a bit for the local environment. What's the discussion that works best in this location?

Rob Stavins: I see.

David Hone: That's only because policymakers in different places want to hear different things or have a different idea on it. It's much more difficult in the US these days, I think having a cap-and-trade discussion than it is perhaps having a broader carbon pricing or carbon tax discussion.

Rob Stavins: That's right.

David Hone: Yeah. But the policy that directs all that is the same across Shell.

Rob Stavins: I see. Now I want to burrow in on climate change and climate-change policy. But before we do, I'm interested to hear your assessment of the situation in which we currently find ourselves, namely, the global coronavirus pandemic. Can you tell us what has been the impact and what do you think will be the impact in two realms with which you're very familiar. One is the oil and gas sector and the other is global climate change. Not so much policy, but global climate change itself and the oil and gas sector.

David Hone: Well, I think as you've seen, the oil and gas industry has been hit quite hard by this virus, although underlying demand is still at a relatively high percentage of what it was prior to the pandemic. Nevertheless, there's some deep wells. So for instance, in terms of demand, so clearly aviation went down to not quite zero, but not too far off it. And that posed some severe logistical problems. Whereas other fuels were more in demand or at least their demand didn't change a lot, but overall there was a drop in demand. I think it stressed the oil industry for briefly in terms of global storage.

Rob Stavins: I remember.

David Hone: Everything was still pumping.

Rob Stavins: The famous negative price.

David Hone: That's right. And that was a bit of an anomaly because of storage and storage aberration inside the United States. But nevertheless, it highlighted the issues, but with OPEC making cuts and with the industry, sort of using the flexibility that it has, making the most of the shipping that it's got, filling up storage in various parts of the world, all of the flexibilities brought to bear, including some production cuts. And that immediate problem has been largely addressed, but there's still a period I think ahead of weak demand, which the industry is going to have to deal with. And that will probably modify the rate at which the various companies, not just the companies like Shell, but the international oil companies, the rate at which they invest. So it will take a while for the whole system to correct to this, but it will correct. This isn't the first crisis that the oil and gas industry has seen, even in my career there's been several and it's a remarkably resilient industry.

Rob Stavins: So let's turn now to, to climate change. What is your candid assessment? I'm not asking about Shell per se, but overall of the global oil and gas industry with regards to climate change.

David Hone: Well, I think what I've seen over the years that I've been looking at this issue and being involved in it is that the oil and gas industry has moved a great deal. I think one thing that not everybody may necessarily agree with, but I think what's apparent today is that the industry is starting a pathway of transition. That's been building momentum over the last few years, as companies have started to look at their portfolio, think about the longer term, look at the opportunities that are out there, look at the future energy mix.

David Hone: But I think where people perhaps have problems with all of this is that they imagine a very fast transition and they forget about the immense scale that this industry rests on. It's providing not just Shell, but all these companies a hundred million barrels of oil per day into the global economy. And that's not just going to vanish in any short period of time. The renewable industries have been at it at a relatively high pace now for some 20 years and we're still in sort of single digits in terms of the percentage of solar, for instance, in the energy mix and sometimes in low single digits. But I think this transition is underway. And I've seen that in the oil and gas industry a recognition that that's happening and that portfolios are going to have to start to align and in some cases are going to lead that transition.

Rob Stavins: So there's a transition surely, but looking at it from the outside, I'm not in the industry. What I see is that the transition is taking place at different paces among different companies. Whereas the European majors, BP, Royal Dutch Shell, and Total have been quite ambitious in their climate change plans, or at least their announcements that I see. Others such as ExxonMobil and Saudi Aramco, I think it was just last week or the week before have just set targets for the first time under the banner of the Oil and Gas Climate Initiative. Are you

saying that the industry is more homogeneous than it appears to me in regards to climate change?

David Hone: Well, I think it's always been a very competitive industry, made up of very individual companies and everybody will chart their own course. But I talk to colleagues in many companies and I don't really perceive there's any fundamental difference in the way companies are viewing this long-term transition. There'll be some companies that think it may take a bit longer; other companies who think, well, in certain areas it may go quite quickly, but that's always been the nature of the oil and gas industry. When Shell started out, I don't know, it must be 40 years ago or more in the LNG space, many commentators at the time, I think thought, "What are we thinking? Why are you doing that? Who needs this?" And yet today, it's a major part of the Shell portfolio and many other companies as well. And it's a major energy supplier into the global energy mix.

Rob Stavins: Now you've worked for many years, as you said, on emissions trading, which is natural, once you got into the climate space, having been working previously to that in oil trading in London. Before we get to the international dimensions, the Paris Agreement and all of that, can you give us your assessment of the European Union Emissions Trading System?

David Hone: I've always believed that the European Emissions Trading System was a good system. It's a very simple design. It always has been. It's got a few extra pieces on it now. It's focused very much on large emitters that are quite price responsive, and it has a declining cap that will eventually go to zero. The rate at which that goes is under discussion at the moment but nevertheless, it will go to zero. And it has consistently delivered. Now, we've seen high prices and very low prices over the last 15 years, but it just keeps ticking on and delivering. And I think that's cause for optimism around its future, I think it will get us Europe to net-zero emissions. The net part is problematic because there's only one type of unit in the emissions trading system at the moment, which is the right to emit a ton of CO2. So at some point you're going to have to introduce another type of unit, a sequestration unit so that participants can match emissions with sinks. But the trading system has evolved as those needs have become apparent. And I think it will evolve again. And in fact Shell and other companies are talking about the introduction of a new type of unit into the trading system, as part of this rethinking around the net-zero emissions objective now.

Rob Stavins: Yeah. It wouldn't be difficult in principle to add credits for sequestrations either to an emissions trading system or tax credits to a carbon tax system. Either way sequestration in principle be brought in.

David Hone: Yeah, I think so. And ultimately it has to, because sometime from some point in 2050, there'll be no further issuance of allowances because it will hit zero. Yet I would almost bet my last dollar on the fact that in 2050, they'll still be emissions in the EU context.

Rob Stavins: Right. Now you mentioned that the allowance prices in the EU ETS have been quite low for a while. What are the reasons why they were low? A lot of people were really condemning the system with those allowance prices, but what were the structural or other reasons for the low prices?

David Hone: Well, I think there were three. And we could argue for much longer than the time of this podcast as to the relative weighting of those three. And we actually have in the past, I think, you and I discussed it at some length. So the first one was that with an eye on the Kyoto Protocol, the EU opened the door to the CERs, certified emission reductions from the Clean Development Mechanism. And that brought an inflow of units into the system. That really got going at just the time we saw the financial crisis in 2008 and a drop in demand because European industry contracted a bit during that big recession. And so there was a lower demand for units within the system at a time when the gates were opening to let more in, and it's taken a very long time for that to correct.

David Hone: And then there's a third underlying, and I would say, this is one issue that's never quite been addressed by the EU and they recognize it, but it's always going to be a problem, I think. And that is that there are other systems competing within the space where the EU ETS operates that also act to reduce emissions. And some of those systems have mandated requirements against them. So you meet your mandated requirement and if that drops the emissions below the level at which the trading system is set, then the carbon units have no value.

David Hone: And so those three things all competed for, to push the price down. The MSR, the Market Stability Reserve, and in fact, Shell was one of the companies that really advocated for that because we wanted this trading system to work, has withdrawn a lot of units from the trading system and rebalanced it, I think quite effectively. And I think then the other thing that's playing into now that's really good is that participants have finally got a line of sight on net-zero emissions. And although it's 30 years away, when you start looking at big projects, at big CCS projects, big reduction projects, you've got to be thinking on that timescale to build at the scale necessary to make a difference.

Rob Stavins: Now, let me ask you, you mentioned those three factors, the last one were these so-called complementary policies, and there's an important effect of there as you well know that there's a real perverse effect of not only suppressing allowance prices in the trading system, but having the effect that those additional regulations, which are more stringent, which is why it's suppressing the allowance price, result in CO2 emissions simply being reallocated to another sector that's possibly outside of the EU ETS or within, rather than actually reducing CO2 emissions on net. This is what European environmental economists have referred to as the waterbed effect. And I know you've written about this as have I.

David Hone: Yeah. So you mean what we also call carbon leakage?

Rob Stavins: Yes, exactly. Yeah.

David Hone: Yeah. So yes. That is another effect of emissions trading systems is that if you're the only one that has one and you have an additional cost in your industrial system that others don't have, over time there's a tendency for some sort of leakage.

David Hone: It's cheaper to buy something somewhere else and bring it into the system rather than to manufacturer at home and have emissions at home.

Rob Stavins: Right. Now, I don't know. Does Shell have refineries in California?

David Hone: Yes. I think, we certainly have had them over time.

Rob Stavins: Over time, because my question is, I'm just interested to hear if you follow some of the other emissions trading systems. There's Korea, New Zealand, California, and others. Do you follow any of those?

David Hone: I have to some or other extent over the years, I haven't looked deeply into the California one for a while. I guess the one I'm closest to more recently is the EU system. But I know about the other systems. Yeah.

Rob Stavins: Okay. Well with that, let's just turn before we wrap up, to the international dimensions of climate change policy, and for that matter of emissions trading. We've had an opportunity in these podcasts in the recent past to discuss Article 6 of the Paris Agreement with quite a few guests, all of whom you know -- Andrei Marcu, Jos Delbeke, Kelley Kizzier, Paul Watkinson, and Sue Biniaz. So tell us your view, how important is Article 6 that provides of course, I think our listeners know, but for international cooperation in various forms. How important is Article 6 to the ultimate success of the Paris Agreement? Or is it a peripheral element?

David Hone: So I think it's critical to, in fact, I don't think you can reach the goals of the Paris Agreement without Article 6. And the reason for that is that ultimately we're going to be matching sinks and sources around the world for quite a while, while we're still using fossil fuels, and while we still haven't found clear alternatives for all of the use of fossil fuels are put to today. And so there will continue to be emissions. Aviation is a great sector as an example, but there are other sectors as well. I know everyone always says aviation.

David Hone: And so just as we were talking about for the EU ETS, I think at national levels there's going to have to be a matching of sinks and sources. A really interesting example as a country like Singapore. They're a huge supplier of bunkers into the shipping market, the aviation market. They've got a very large chemical industry. These are all things that are going to continue into the future and substitutes will emerge over time, but probably not in the timeframe that a country like Singapore wants to get to net-zero emissions. Yet it has very little

local capacity because of its size to find sinks domestically. So countries like that, and even bigger countries I think, will look externally to find emission reductions or sinks to match with their continuing sources. And Article 6 is key to that.

David Hone: And I think there's going to be a number of countries around the world that have huge sink potential, which to unleash that you want international investment into that country because why would they do it themselves if they've already managed their emissions? Why would you go even deeper into negative territory unless somebody is financing that, and you're delivering an export industry of negative carbon units?

Rob Stavins: Now you mentioned Singapore, which is interesting because Singapore of course has instituted a carbon tax within the country, but something that as you know that we've studied and written about. And you and I have discussed in various settings is the fact that international linkage can be among heterogeneous climate change policies. Indeed, a carbon tax can engage in a linkage, essentially trading with a cap-and-trade system. So there are real opportunities there under Article 6.

David Hone: Yes. And I think that's why we have to get this Article to work. Now, if it isn't ultimately part of the Paris Agreement, it's not going to stop countries embracing bilateral agreements, but it's much more efficient, I think, to do it through the Paris Agreement under the accounting framework of the Paris Agreement and under the sort of the blessing of the UNFCCC, even if it's sort of local arrangements.

Rob Stavins: So does that mean, are you saying that if the Rulebook for Article 6 is not finalized at the next cap in 2021 that nevertheless such linkages and an international carbon market will nevertheless proceed?

David Hone: Well, there are already bits and pieces of it around the world. Switzerland is already linked with the EU and there has to be some sort of reconciliation of that against their national targets. Now, as I said, it's much better if this has done under Article 6, because it gives some homogeneity to the whole system, which I think is in everybody's economic interests, but it's not an absolute show stopper to no trading. But nevertheless, we still need it.

Rob Stavins: So finally, on a very different plane, there has been a rise, I think you'll agree, in youth activism, youth movements, of climate activism around the world, but particularly in Europe and the United States in the year 2019, what's your reaction to that?

David Hone: Well, I think the first thing is it's great to see broader engagement on the climate issue. And it's great to see that people are passionate and interested and want to see resolution of the issues. Are they giving companies like Shell a hard time? Sometimes. But I think we have to listen to them. They are the ones

that are inheriting the problems that are associated with rising carbon dioxide levels in the atmosphere, and therefore it's not unreasonable that they are active in the space of trying to encourage change. I think a lot more people need though, to enter into the, what we call, I don't know if it's the same in the US, but what we call STEM – Science, Technology, Engineering and Math types of disciplines.

David Hone: And I would really encourage these same activists to join the energy industry. It's a great career and it's a career that you're going to see an awful lot of change. When I think about my career in Shell, the industry hasn't changed dramatically in my career, right? It's broadly an oil and gas industry when I started and it's oil and gas industry today, 40 years on, right? But I think of somebody starting in Shell today, who might be leading the company in 30 years time. And if you look at the commitments that Shell is making around its future and around the need to be at net-zero emissions around 2050, that person, whoever he or she may be is going to be leading a company that looks very different from the one today. And I think that's an exciting challenge to be part of.

Rob Stavins: That is exciting. And that's actually a great place to end, recognizing that the people who will succeed you at Shell are people that are of the age of the youth activists today, just as the people that will succeed me at Harvard are of the age of the youth activists today. So thank you very much David, for taking time to join us today.

David Hone: Thank you, Rob.

Rob Stavins: So thanks again to our guest today, David Hone, Chief Climate Change Advisor at Shell International. Please join us for the next episode of Environmental Insights: Conversations on Policy and Practice from the Harvard Environmental Economics Program. I'm your host, Rob Stavins. Thanks for listening.

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