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Join **Beth Hardy**,
VP, Strategy &
Stakeholder Relations
in conversation with...



David Byers
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TRANSCRIPT: BETH HARDY, DAVID BYERS, DR. JULIO FRIEDMANN

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Beth Hardy: Thank you for joining us for our series on carbon capture and storage. Today I have two guests with me, Julio Friedmann and David Byers. Julio Friedmann is the Carbon Wrangler. Dr. Friedmann is a senior research scholar with the Center for Global Energy Policy at Columbia University and was recently Principal Deputy Assistant Secretary for the Office of Fossil Energy at the Department of Energy. He's a globally recognized expert on carbon use, storage, conversion and removal. David Byers is a CEO of CO2CRC, Australia's leading carbon capture and storage technology research organization. His vast experience includes leadership positions with the Petroleum Association in Australia, economic development committees, and with the world leading companies, BHP and ExxonMobil.

So, thank you both for being here with me today.

This is an unprecedented time. Along with the human health pandemic, we're also seeing a slowing down of the global economy. There's a short-term drop in emissions, but an opportunity in the near term for actionable measures post-pandemic. So, David, job creation and construction are obvious opportunities. What recommendations would you offer for policymakers to stimulate the economy?

David Byers: (1:30) Well, before I plunge into that, Beth, I think it's important to get our minds around what we are facing here. I mean, this is a huge challenge we're in the middle of, probably the biggest challenge a lot of people have said since World War II. We're looking at a situation at the moment where impacts on economic growth are going to be vast across the world, something like 90% of countries this year will have negative economic growth and negative impacts on GDP. And if you think back to the global financial crisis, I think the number there was about 60% of countries had an impact.

So, the first thing I think that I would say in regard to that is that it's a qualified yes that there are some opportunities out there for clean energy technologies. But I think from an Australian perspective, Australia's major exports really are in the energy space. So, we'll be very much driven by what happens in international markets and international trade. And from a domestic perspective, I do have some optimism that the Australian Government will move with regard to

having some – recognizing or putting an economic value on geological sequestration by way of recognizing it for the purposes of accruing Australian carbon credits units. But really, I think the big game is going to be what happens internationally. But there I think there are some fairly big opportunities for clean energy technologies like carbon capture and storage, particularly as you reflect on the fact that, you know, a lot of the growth when we look around the world and look at what’s happened with electricity, for example, and the generation of electricity, much of the new building really has come in places like China and through Southeast Asia.

Beth Hardy: (3:24) Wonderful. Thanks so much. I agree completely with there being opportunities in Asia and the Knowledge Centre is actually looking at some of those opportunities right now. So, I really hope that after all of this, we go forward with some of those opportunities.

Julio, we’ve often talked about your ideas around how government procurement can aid in advancing CCS. Can you tell us more about that? And do you feel that at this time, that could help to stimulate the economy?

Julio Friedmann: (3:54) First, I want to like, David, make sure that we talk about the context in which this is happening. This is first and foremost a global health crisis. And all the challenges in people’s economies flow from that. It is quite different than the last big financial crisis 12 years ago. So, the policymakers in the United States are focused, first and foremost, on public health, and getting money in people’s pockets to stave off the worst. And we have to be sensitive to that. And the first round of major stimulus a couple of weeks ago, and the next round of major stimulus are really going to focus on those things. They’re going to focus on how to maintain public health, how to keep businesses liquid, how to put money in the hands of people and in their communities. As the energy markets cook up again, we’re going to be in a different place, and we are going to need more financial stimulus at that time.

So something like a procurement bill, whether it’s buying low carbon concrete and low carbon steel to help rebuild America –helping to buy things like pipelines, which would provide the critical infrastructure that we need to deliver CCS in the United States or in other countries – I think those are looking promising for the next round after this. My hope is actually that we put together a handful of really solid proposals that can build a big tent coalition to put CCUS and other helpful clean energy technologies on the menu so that we can act on them judiciously.

Beth Hardy: (5:28) Exactly. I couldn’t agree with you more. David, people are at home working, you have to stay at home and electricity supply becomes a big consideration even though total energy use is going down, we’re using it in our homes more and more frequently. We have a – we’re more attuned to it. Can you have your perspective on how CCS can play a role in those types of considerations? I know you mentioned earlier electricity generation.

David Byers: (5:55) There’s no doubt that, you know, the reliability side is a very, very important part of the electricity supply. Again, speaking from an Australian perspective, we do have ourselves in a situation where we have an increasing proportion of our electricity generation as current capacity is coming from variable renewable energy sources. And that imposes greater strains, therefore, on the entire system, so that we do need to have those continuous sources of electricity generation.

So, I think what does that mean for CCS? A third of the coal plants around the world are less than 10 years old. And most of those are in Asia. And I think that’s where the opportunities lie for post combustion capture and carbon capture and storage and electricity generation context. But I still think that over the long term, again, the opportunities really are across all of the sectors, that’s the benefit of carbon capture and storage technologies, because it can be applied to industrial processes as well, and those are, you know, represented fairly strongly across all major economies. And so, the story becomes a much more evenly balanced one when we look at it in that context.

Beth Hardy: (7:08) Julio, energy use is going down, emissions are going down, but that also means oil prices are going down. I'd love to hear your thoughts on what the price of oil going down can mean for carbon capture and storage.

Julio Friedmann: (7:21) So, let's be clear about this. We've had two crises at the same time. One of them has been the COVID-19 pandemic and at the same time, we had a price war between Russia and Saudi Arabia and the collapse of OPEC+. What the things this meant is a complete destruction of demand at the same time as a gross oversupply into the markets. This has a couple of challenges and a couple of opportunities in the context of CCS.

One of the challenges is that actually, many of the groups that are most forward leaning on CCUS are in fact oil and gas companies who see this as part of their estate and part of their future. Their balance sheets have been badly damaged. I have been pleased to see that many of these companies have remained very strongly committed to CCS and are still planning to proceed with projects are still invested in new business units, and that I consider to be salutary.

I think that the opportunity for low oil is smaller than the opportunity for low cost gas. We still see record low prices for natural gas in the United States and in many other countries. And that is excellent on two fronts. One of them is in the power sector, where low cost gas provides an opportunity to bring CCS into those power systems at a lower aggregate cost. Because in gas power systems, the fuel price is an important component of the power price and so low-cost fuels actually means low cost CCS.

In addition to that, natural gas is an important feedstock for stuff like hydrogen production, and it gives us opportunities to do lower cost decarbonization on those systems.

Beth: (9:06) So, I want to offer you guys the opportunity to speak about some things that maybe you've had to postpone or that you're doing with your organizations during this time.

David Byers: (9:15) I suppose what I wanted to offer was probably a little bit of a reflection more than anything else that we're doing anything differently, and that is, I wonder what this sort of period means for leadership. You see the – even political leaders being forced to adopt different leadership styles now. Having to be more decisive operating on, if you like, less information you can't wait until all of the analysis is in. You know, the public health experts are not in a position to know everything. So, you have to kind of operate a little bit on the basis of your best judgment and experience and wisdom. Less being hidebound by all of the analysis waiting for all of the things to be done to a 10th decimal place, I think we need to sort of operate a little bit more on the basis of our intuition and experience and push things further off, further forward on that basis.

Beth Hardy: (10:09) That's a fantastic perspective. I hadn't really thought of it that way. And Julio, is there anything you'd like to offer?

Julio Friedmann: (10:16) Yes. So first, quickly following David's point, one of the things we've learned from this crisis is that there is no substitution for expertise. In my own shop at the Center on Global Energy Policy, I've had to put a lot of things on hold actually. Personally, that's included a publication we had pending on finance of CCUS projects and designing policy for the power sector in the United States. We've been working with the Clean Energy Ministerial with the G20, with COP26, all of that is on hold, of course. And hopefully we'll be able to get back to that soon.

Conversely, I would say that our center has never been busier, the combination of crazy unprecedented changes in the oil and gas sector, with the implications for how COVID-19 is impacting energy sectors in the United States and worldwide, has put us in overdrive. And I would encourage people to head to the Center on Global Energies website and see some of that work.

Beth Hardy: (11:17) Thank you so much. The links to your websites will both be posted on our

website as well as the link to this video. And I hope you guys can share it with your colleagues and stakeholders as well. Thank you so much for joining us today. I really appreciate your thoughtful perspectives.

Julio Friedmann: This was a treat. Thank you so much for giving us the opportunity

David Byers: Thank you. Thanks for the invitation.