

Gerard Reid interview

Thu, 3/17 12:09PM 45:54

SUMMARY KEYWORDS

prices, people, decarbonize, energy, market, solar, renewables, gas, government, world, power, electricity, thinking, europe, russia, transition, happen, cost, fossil fuels, requires

SPEAKERS

Gerard Reid

G Gerard Reid 00:04

Yeah, no problem coffer Yo, what's up, Jared? It's Jared it's not generally it's Gerard yeah it's Gerard here No bro Oh Nice Nice to be here Michael we were who were a bit ahead of our time at the time actually not. And that report costs a lot of pain and anguish between myself and my partner Bruce Well, that's good to hear. Okay, well, yeah, that's actually you're probably right. And actually it was I suppose Look, that's how we we founded our business on the basis of that really to be honest Yeah. Well, yeah, it was sort of almost like a strategy discussion between myself and Bruce. Yeah, at the time. Yeah, what we were going to do what we're going to focus on and what was important and what was not important, important going forward, right. And totally by accident, so I got into energy. I was, I was the head of research in a business in Germany called first balloon, which was an equity research house independent Equity Research house. We were covering, covering sort of the whole pilot companies, but I was also covering some of the wind companies at the time. And then an investor mindset, this gentleman to do an amazing investment to solar company, would you go and have a look at the company for me to build a due diligence. And I sort of came back to him and told him, it's a bit of a joke. Don't put your money in this. And he said, No, no, no, no, no. He says, I want you to go and meet the founder. And, and I did. And I was blown away by the foresight of the founder, who was explaining to me why solar, silicon panels were going to be very similar to semiconductors and why there was going to be dramatic cost reductions and performance improvements. And I believed him, my client made a lot of money. And then I sort of became the one eyed man in the lair in the land of the blind, and the sort of rest is history. So. Okay, well, I suppose first of all, as myself, Bruce, were in the US investment investment bank, Jeffrey. So I was in charge, the equity research team that was looking at sort of clean tech. So that was looking at solar companies, when companies and advising investors what to do with their money. And then on the other side, Bruce is in charge the investment banking business, so both of us have left Jeffrey's and we were thinking about what we were going to do next, and we found a Lexan. We also said to ourselves, okay, we really wanted to sit down and sort of think to ourselves, okay, if we're going to do this, we need to make sure that we position ourselves strategically, correctly, though, in the right way. And then that's why we sort of wrote that paper at the time, maybe it was more to help us more than anything else to make sure we were aligned and I suppose now. What we do is merger and acquisition advisory work and advice, general sort of capital markets advisor working around this transition, really working with companies who have got very

interesting technologies or Who wants to build platforms to make change happen? I suppose that's, that's where about? Yeah, of course. So we did a financing about a year and a half ago of a company called Oxford PV, which is a next generation solar technology company. And what they have done is they've got a whole pile of intellectual property rights in and around what's called peroxide. And the idea with this peroxide technologies, you put it on top of a crystalline silicon cell, and you increases the efficiency of that cell significantly, which means you get more energy out of a unit panel. And that actually reduces the cost to the customer. Because you're just it just you're getting more out of, you know, a square unit of area. And they're, they're in the process of building a production plant. Now they're in production right now. And that's the type of thing we do. Yeah. So we Yeah, up towards 30%. So if you think of it today, our panel today, best panels are probably 22%. But if you can get towards 30%, that's like a game changer, right? Yeah, yeah, exactly. That's what I would say, the best way to describe it for certainly, if you look at solar wind are very different. So from a solar perspective, what you're doing trying to do is you're trying to use less silicon, that's what you're trying to do, right, use less silicon going forward, number one. And secondly, putting mix new materials in with that silicon silicon, to enable you to get more electricity out of that sun that's hitting the panel. That's really what it's about. And I'd say the second thing in silver is just making it much simpler to install solar already solar is is is easy to install, right? And you're me, we could probably do, if we're given the funds. And someone says, here's the land, we could build a gigawatt power station within a year, right? Without technical expertise, you could do this, right. But I would say to you, now we're getting to plug and play and solar, so that it's going to be really simple to put stuff on your roof and things like that come for you literally just plug it in. And that's that's where you're going to have that. And so I see significant cost reductions across solar in the next few years. If I look at say something like wind winds it more difficult one, because wind is all about increasing the height of the of the turbine, if you do that, the more higher you get, the better the winds are. But the issue that you have is, it just becomes a just an it becomes an engineering fish. And, and also, the issue that a lot of the wind companies would have is that people don't want to have these huge big turbines near to them, right. So you might put them offshore or something like that. But there's not the same I would say there's not the same cost down effect that you have in solar, because solar really is a semiconductor, but when does winter still interested in golf or whatever say and then you've got look at other technologies like like lithium ion, lithium iron has got a very similar cost road map to to solar. And it although it's not a semiconductor, what you're seeing is massive scale effects, and significant changes and improvements in the materials that go into lithium ion. So you've got different Kantech chemistries, different kinds of animals, electrodes, and and that's also going to continue improving going forward. Yeah, because the thing about offshore wind is you've got capacity factors. In other words, how often is running, or 50% of the time, right? That's pretty impressive. And if you've got an onshore wind back, depending on where you are, and it could be somewhere between 20% and maybe 35%, right? And that's really, really important. If you want to get to the point where your economy is based on Unreal on renewables. You want to have high capacity factors. That's what you need to have because if you don't have high capacity factors, then you need to balance it with something else. Yeah, so we're a middleman. We're like a broker. That's what we are. At the end of the day somebody needs money and somebody who has money and you're in between, or you somebody that wants to buy a particular asset or particular technology and someone who has to sell it. That's sort of what we do and we're in between and what and if In you know, in addition to that what you're adding in is like just me I compare it to selling a house that's a real pure brokerage do you bring to the house show what's going on, you take a fee and run, what you've got is a quite a significant project management capabilities that have to go on in around a transaction, because the due diligence of, of whether we buy their technology and how much you buy it for, it's much more pick, and difficult to do than a house where you look at the house and go, well,

there was a house down the road rent for that. And, you know, that's how much a square meter but much easier, but you know, just think, think of it they like like you're a broker, but what is it that you're in addition, doing is adding quite a lot of surplus value add services around that the buyer and a seller of whatever you happen to have have been selling right. Actually, it's not even just overlooked. It's completely forgotten, and people. And you do this at your peril. Because if I look at the transition, the transition is all about putting capital to work, right, you have to build a grid, you have to build hardware, that's what you really have to do as you make this transition happen. And to make it as cost effective as possible, the most important thing is to have the lowest cost of capital. And the system that we have in the energy markets is not set up for the lowest cost of capital. Right, it was set up for oil companies who actually had high cost of capital, because what they were doing was drilling in very difficult areas, and a lot of risks there, etc, etc. And the system was safe set up. So to enable them to make good returns, given their risk. Electricity is completely different. And even sorry, the power markets are set up to sort of in a similar way to the oil markets are where where you're rewarding, where we're what you're doing is you're trying to make sure that the energy company covers the costs at any moment of the fuel costs, right? We go I don't have fuel costs in a renewable world, right? I've got a solar panel, it doesn't have it. So it's all about capex. And it's part of the reason why I sort of, I suppose started writing blogs many years ago, but also even the podcast because it's important to explain it, you can't do this transition with the old way of doing things, right. And the old way of doing things was you would leave the utility make a decision? I yeah, there's probably going to be scarcity in the market going forward. Yeah. And if I look at the power AI, I've built a gas generator, right. That's what he would do. Now, it's a completely different story, because we've got periods of the day where there's negative power prices, right. So and if I look at that now, and I go, Well, I think there's more and more solar this, that's going to just alleviate the situation make it worse, right. So you go well, okay, then I'm not gonna build. And then you said that said it requires quite a radical rethink in the whole system, if you're going to do this energy, energy transition in an efficient, low cost fast fashion? And I would say the concern I'd have is, it's very difficult for that to happen, because you've got an incumbent endurance data, if I take the case of the State United States, right, you've got you've got a, there's nothing much changed in that whole energy system and 100 years. So a lot, a lot, a lot in a lot of states, you don't have any competition whatsoever. So you've got a regulated utility, who just goes to the regulator and said, This is what I want to do. And they argue a bit, you know, they let him do it. Yeah, okay. Right. Well, where is your incentive to innovate? Where's your incentive to renewable eyes to change to allow competition to come they've known so that like, that's, that's an, you know, and that starting environment, and it's very difficult to go and force change. And I would argue that the change that were going through from fossil fuels to a cleaner world is the biggest change you've had in our energy space. And since the beginning of the 20th century, and it's huge No, and I still I'm still waiting for the day when I meet an intelligent regulator and no criticism to the to the individuals who work for the regulators, because they're also their hands are bound as well by a lot of old rules and old thinking, and and even if they want to change they probably can't make Two changes that are needed. So again, it to make the transition happen you, you, you need to have. First of all, we need to take a really systemic view. And and we what we've done a good job of is deciding what we need to do. So I can go to the IAEA and they will tell us, this is what we need to do to decarbonize. But they don't tell you how. And so the work has to be how do we decarbonize? And how do we do this in an intelligent, cost effective, and as least disruptive way as possible? And that that thinking is not really going on? To be honest, Michael, that's what I would say. Well, it's, it's not working with fossil fuels, and it's not working in the renewables area, either. So let's be clear, what you've got is a broken market structure at present. And that requires, it doesn't require a bandaid put on us, it requires really radical rethinking of where we want to go. And then what's the best way to incentivize us to get there, that's what's required. And I don't

see that thinking going on. And I could argue why. And I can say that a lot of the economists and policymakers are stuck in that say, this old world view of fossil fuels being the center of the energy system, and being set up for them, but not being set up, as I said, for this era of high capex low operating costs, renewables. That's a completely completely different world. And and I think that's the biggest challenge, actually, we have gone forward, it's not what we have to do. Again, it's how do we do this and requires also, I would say, some level of systemic thinking in this space, which isn't often oftentimes not there. And I mean, if you look at the energy markets at present, right, just let's talk about some of the issues that are there a present. Number one is, what's happened is the volatility in the market has caused a whole pile of companies to be have liquidity issues. Some, some of them have loads of cash in the balance sheet, and some of them don't, and the guys who are actually supplying the power and the energy have liquidity issues, even though they you think there's a power prices going up energy by is gonna bring good situation. But because of the way the contracts work, either the power market or the customer, they have to give guarantees over to that customer. And so what you're seeing is certainly Germany now. And this is just in the month of March has three utilities that the different emergency financing to just to make sure that they can meet margin calls. And so that we have to really, really, really rethink about how that whole hedging system works. And utilities have, in some ways, been very spoiled by what's been going on the last few, which is power prices going down every year. And the industrial customer on the other side has gone. Powers of power prices are going down. I don't need to hedge I don't need it. So now suddenly, it's all gone. How does Bruce lose their Oh, but you know, I would argue this is really poor risk management by the industrial companies and by the utilities, and you can't bail them all out. You just can't we have to face facts that they've made mistakes, but you do have to look and say, there is market structure, structural issues there. And I also say more important is to really think about what the price signal does is the price signal should send you a price to invest or not to invest. Okay. But what the issue is, is that you've got a whole pile of generation or infrastructure there already. And so the price signal is basically saying to you don't build anything, because we've done enough. And so, yeah, the question then is, how do you incentivize new build? Well, that means you sort of have to close some of these fossil fuels. That's number one. But I would argue even at that, the issue is that you've got now there's variable renewables and the result of variable renewables is the so called Capture price which is the price you guess at any moment in the market the capture price is going down and down and down the more wind or solar you put the system right that's that's a factor in you know us that are going to California talking about duck curve. And we have to think about how do we allow How do we change the system to allow to to to you have to change the system to allow the customer to benefit from these periods of low pricing and also to make sure that the guy is building whatever it is his building gets the return he needs. And I would say that there is massive risk I call him phrase Taylor and risk in the whole energy world because of the way we financed renewables that's what I would say. Well, well Miko. They've got an excuse now. And they excuses. We've got an economic war going on between ourselves and Russia. And that's a fact. And you, I think they should be going out, and sort of saying, Guys, public, we need to change our behavior here. And explain to them what's going on with price? And listen, I've no, no doubt, you might have to help the very needy, but you have to say, Guys, we now to change the way we engage with energy and put campaigns into enable people to help people to think about solutions. Most Extreme, obviously, is rationing. And that's what I think you should be doing. And however, they're not doing that what they're doing is the exact opposite. The exact opposite is they're reducing the taxes on the fossil fuels. And you're gonna go, guys, that's not absolutely my, if I if I'm hooked on drugs, you know, don't lower the price of the drugs for me, right? Don't do that. Get me get off drugs. That's the issue. So help people get off drugs and explain to them that you're a drug addict. And that we need help. I mean, that's for me, like, be really open. That's what I that's what that's what has to happen. So to hear all these short fixes

in the market, what this is just panic stations by regulators and governments who were not prepared for what's going on. And I want to say one thing, this is not just the Ukrainian situation, this started happening nine months ago. And the reason it happened was because there was tightness in the GASMA global gas market, because of a pic of demand in China, in particular, China, but also some of the other countries like India, that's where the market got tight. And simple as that prices there mount up. And then you know, causes a little bit of panic at the moment goes up and then power prices went up. Because there's another factor as well, I would argue is that we're closing quite a lot of power stations, nuclear and fossil fuel power stations across here, that creates tightness in the market. And you've got tightness on the, in the electricity market, you've got tightness in the gas market, and crazy things happen on the margin. And price has exploded. But again, this was six months ago. And in addition, you've got carbon prices that have gone through the roof as well. So you've got this sort of whammy that's hit this industry. And now what you're seeing is utilities go out and say, well, it's all because of Ukraine. I go It's nothing. It's not because of Ukraine, Ukraine, you might say as the final nail in the coffin but it was happening before that. And governments did nothing over the last nine months. I was saying to people this wholesale power prices are up retail prices are going to explode in 2022 There's just no way around that right now. There is way around a mica there is there is of course ways around that year but but this stuff about doing you know guy caps on gas prices and stuff like that this is a goal. Okay, caps and gas prices if I have to buy the gas and well then I'm not going to supply to if I can make money by buying the gas supply Like power, and you put a cap on me, I'm not gonna do it. I'm just gonna supply it. So then you guys great with me have brownouts? I mean, come on. It's like some of the stuff that you're hearing is absolute and really bad signals. The EU talking about, you know, believe the reader writing Oh, yeah, reforming the carbon emissions market, right? Because if you think you're you, you're going to reform the carbon emissions market, you got to get out of them. So you, you press out, I mean, just that I just see the stupidity of the stuff going on across Europe and I scratch my head, I go, Oh, my God, oh, wait, no, maybe I'm being too open and forthright mature, but I it's quite nice. It's quite ludicrous, what I see is, is that there are a lot of people who are meant to be experts in this and just don't don't our standard. That's what I see. So, what we definitely need is governments to step in and put the regulatory framework in place, I say, this incentive structure in place to enable us to decarbonize quickly, what I think will be a complete disaster is if governments tried to nationalize the energy transition, because what ends up happening will be massive mistakes, huge cost overruns, and actually bad decisions. And that, I would say, in a world where I would also add in a world where you've got the speed of innovation is so ginormous, I'm talking about solar, wind, and whatever. But actually, the speed of innovation is so quick. That could be innovation. Say, I just give an example of the geothermal area that could change the whole way we look at energy overnight, and what you've got, as a government, who's given us plan and is telling me, you know, tell them their state owned entities to do this, that the other thing, and then they miss the new game in town, right? That's the concern I'd have. But there's no doubt we need very good regulation, and very good. Not just direction real, real thinking around what's the best way to push this transition going forward? But I would be, I would actually look and say that actually have a look what's going on now in terms of the energy markets, and whatever. It's all caused by bad government policy. So the whole I mean, I would be very sad, let's be go true. Are we gonna be clear why it is? If a business makes itself totally dependent on two suppliers, it's a that's a bit of a silly thing to do, guys, you need to go and actually, you need to go and expand their long term storage diversification. We've got countries in Europe, who buy 100% of their oil from Russia, we've got countries a whole pile of countries, a, you know, that are buying 40 50% of their gas from that's really stupid. Okay, that's called bad risk management. So it started the government's my opinion, right? And they did nothing about it. Right. In fact, they've increased that dependency on that on Russia over the over the years. And so that's why it'd be cautious

about getting them. I'm cautious about getting them to evolved and telling us what to do for that reason, but I would also say another thing is that if we really want to push this energy transition going forward, we need to get the people involved. Right, that we and this is and this is not the case. Yeah, you have the Friday for the future that I got did Mr. Just do that? 95% of people don't understand anything about energy. And they just think that they're wasted. And, and, and if they don't change their behavior, oh, it's great. You put a solar panel on your roof, you buy an electric car, but that's not real behavior change. We have to get the people to begin to make behavior change and demand behavior and then Governments will go okay, well, now we need to do something, right. That's what I prefer. So coming up with ideas and of what you can and can't do going forward, that's will be my hope of what should happen. And I think, Miss Churchill's words, don't waste a good crisis. This is a crisis. And we now need to not waste it, and how do you not waste it but not wasted? It is by going and saying, we need to change as a people, we need to change our relationship to energy, and begin to educate people on how they can do it and whatever. And and go from that. And I think that would be from lots of perspectives from one just the same as money, right? It'll help us in this economic war with Russia. And it will help us to decarbonize right and clean up our environment. That's that's that like the change my thinking, is that we have to go much more bottoms up. And I don't want these bureaucrats doing this because I don't think they have the capabilities to do it. No, it costs it is Michael, right? It costs it is it is right. But let's be clear, electric cars are expensive. And so therefore you're the wealthy part of your society. What we've got to present is the people who are being most hit by what's going on in the energy market is the poor sections of our society, and they can't buy the electric cars. So how do you help them to save money? What do you say to them to do this, and I understand short term, you might be able to give them some form of tax incentive, or you give them some promise of the economic, you can't do this for everybody across Europe, right? You just can't do this. So you have to come up with a better strategy turtle. So again, I'm of the view is honesty is the thing we need to do at this point in time and get really people involved. And if we went back to the oil crisis in the 70s, that's what he did across the world. We got people to make behavioral changes. And I see that we have to do the same again. But I would say we don't know what's going to happen in Russia. If the situation gets worse there, and let's assume, for whatever reason, there's no oil, gas, or coal coming in from Russia. We got a real problem in Europe. Yeah. Well, we need to be prepared for that now. Right. And I'm not seeing this I'm seeing, I'm seeing blah, blah, blah, coming out from lots of people. That's what I'm saying. No, no, of course, no, no, sorry. Absolutely. Which but again, the whole Holmes thing, like I'm in an old home, and I have not fully transitioned my home to zero carbon, because I can't get the people to do it. Right, you haven't got the capabilities to do it. I have an old house where yes, I've sold on the roof, and I'm kind of battery, I'm heating with electricity, I'm heating with wood downstairs. But you know, try and get a heat pump in here. I mean, the people go on or do that, or it's too difficult or, I mean, so there's there's a retraining that's needed of people to enable them to, to do what we need to do. Because if I wanted to really, if I really wanted to fully decarbonize my house, it's not just about putting in a heating system is making sure the heating system is connected to my battery, connected to the car, connected to the panel and connected the power system, and is managing that in an intelligent way that I don't need to think about. That's where we have to go. But there's so many regulations that stop you doing this. It's incredible, right? Yeah, well, let's be clear, if you look at the millions of electric devices across the world, 99% of them are small devices in our homes and buildings that do not produce electricity. And we ignore them all the time. And it is really, really critical to be focused on them and make sure that when you are changing whatever it is, in your home that is more efficient than the device before. And, and I would also say the other thing around that is critical is a circular economy, right? And I just try look at my home here. And I look at the amount of cables that I have here. So I'm Why do I have all these cables? Well, I've got all these little black boxes everywhere that

are just small little transformers, that converting AC to DC as we go, Okay, I've got power losses, and all these boxes, they're all warm. All of them are warm, right? That's heat losses coming out? Is it a go? Okay, this is great. So getting all this electricity in as coming out choose wasting out to that there's so much that we can do. But it requires it just requires things getting to getting to market technology is getting to Mark and I find my own perspective as law technicians just don't go to market because of of legislative and regulatory hurdles right. frustrates Well, a mixture of I suppose really frustration and powerlessness and frustration with with the institutions that have allowed this to happen. And then I suppose the the also the powerlessness in the sense that you're looking at this Ukrainian situation, you could people dying every day in your sleep go well, what we can do to what can I do to help them? What can I do to make sure this help doesn't happen again? And I said, Well, what you need to do is come up with solutions, because people are in crisis mode. And in crisis mode, they need to they need they need people that can help them see through the mist, and come up with a path forward. And actually, that 1600 terawatt hour challenge, you could actually write read it and say that's pretty negative chair, because what you're saying is, if we have to get off gas, this is what we have to do. Er. But on the other hand, actually, what I'm also saying is, we can do it, we can do it. It's not, we can't do it, if we can do it. That's That's what I was trying to do just give people like a like, that's why you reached out to me, Michael, that's why I'm this chart, and take to get this message out is that there is a path forward. Because there is a big dialogue present, certainly coming from the North American oil industry, which is we told you so we told you so we're back, we'll get you need us forever. And you're good to go? No, we probably need you for the next year and a half to two years. After that. We're going to need you less than this. I mean, that's sort of the message that I want to give. And that it's not only that it just an alternative is because I'm always very convinced people laugh at me about solar. I was speaking to one of the Nordic utilities recently. And I told him that, you know, solar was going to be the bedrock of their power system, and they thought it was mad. But actually, all you have to say is in every single energy system that's ever been in the history of mankind. The lowest cost alternative becomes the bedrock of the system. Solar is the lowest cost. It's also the easiest and install. That becomes the bedrock. So your system we're going to look back in 25 years time and this and it's going to be based around a solar system which is quick and cheap to install. Okay, you might say this mad, but that's economic sphere, right. And that's why, and I'm not against nuclear, I'd love to actually see nuclear. I think from a theoretical point of view, this is amazing what nuclear can do costs. And the and the time required to build the current generation of technology is such that it will only be minor niche market going forward, unless there's radical innovation, which changes that right. Okay, so if I was the CEO of an energy intensive business today, the first thing I would be doing is crying to the government and saying, Please help me out, right? That's the one. So I'm just saying that because they are doing this, and they will continue to do this. But number two, then you have to look and say, Well, how can I secure low cost gas going forward if you need gas, and that's a real real challenge for them. Because even if you know, you move to LNG in Europe, it still means that your cost of gas is three times what it was in the States, your competitors in the States. So you've got problems straightaway. And so then you really need to think about well, what can I do to really radically change that. And if I was the CEO, again, I'd be pushing the government's to give me the incentives to go to go to alternatives, as in go to, whether it's, you know, go and use for electricity, probably via processes are to actually decarbonize the gas and go to hydrogen and stuff like that, that's what I'd be doing. Or really pretty radical is, we're just going to close production, because they can't compete. And, and again, we have to be very, very careful bailing these businesses out, I would just say, because maybe some of them just don't deserve to be bailed out, because they haven't done the right things in the last few years. Now, the wet really well managed guys will know this issue and will have secured the gas, the electricity at the prices they need, and they're okay. And I don't know how long their contracts

are, but most of them should be okay. So that's what I would say now, what do you take out of this going forward is, is that risk management is really, really critical, whether you're a buyer of energy, or a seller of energy. But I would say, it's not going to get easier for you, because I could make a prediction now, which is of the exact timing, but let's say it's a year and a half to two years away. Yeah, all prices will be backed down at \$30. Right, gas prices will fall from their levels they're at now by 75%. coal prices will have its and it's again, it's back to marginal economics, which is crazy things happen at the margin. And once you have only a small bit of excess supply in these markets, prices collapse. And if Europe, decarbonize is very quicker than what we thought over the next few years, you've got less desire and less demand for all these fossil fuels. And by the way, if you're China, you're looking at this from a geopolitical point of view and going, Oh, shit, were not energy independent, which is strategically possible a great disadvantage against United States, for example. And they're going to go how are we going to change that? Well, how are you going to change it is obviously linking in as much as you can into the Saudi Arabia's of this world and, and the Russia's, but they know that's also not not the long term solution, because they've just seen what's happened between Russia and Europe are codependent are, we thought we'd never go to war with us. So they're going to go renewables in a big way. And they've got to electrify in a big way. So you've got two big parts of the world that have got to decarbonize quicker. And actually, I could then go and look at say India and say the exact same thing there. Because the issue that we now have is we've got fertilizer prices go through the roof, which impacts food. So then you look at this and you go shoot, I need to probably change my how I manage actually how I how I my agricultural practices as well, what I need to do there and then so I really think this is a we're in a moment of radical change I would say right that's that's that's my feeling and sense of it my problem my pleasure makeup. My pleasure Oh yeah. Oh very good very good, very good. Very good. Very good, very good, very good. Take care of yourself by now