



HOUSE OF LORDS

Economic Affairs Committee

Corrected oral evidence: UK energy supply and investment

Tuesday 8 March 2022

4.15 pm

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Members present: Lord Bridges of Headley (The Chair); Viscount Chandos; Lord Fox; Lord Griffiths of Fforestfach; Lord King of Lothbury; Baroness Kramer; Lord Monks; Baroness Noakes; Lord Rooker; Lord Skidelsky; Lord Stern of Brentford.

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Questions 74 - 90

Witness

I: Dan Monzani, Managing Director, UK and Ireland, Aurora Energy Research.

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Examination of witness

Dan Monzani.

Q74 **The Chair:** Good afternoon and welcome. I have two things before I ask you to introduce yourself. First, I am sorry to keep you waiting. Secondly, a number of my colleagues may wish to go to watch President Zelensky, so forgive them if they slip away; it is not something you are saying. Also, forgive us if there is a vote and the bells go; we will pause for a brief moment. With that said, could you introduce yourself?

Dan Monzani: I am the managing director for UK and Ireland at Aurora Energy Research. We are an energy markets data analytics company. I should also say that, prior to joining Aurora a little over a year ago, I was a senior official in BEIS and the Cabinet Office for a number of years.

Q75 **The Chair:** On that point I will come to the first question that I asked Professor Helm. You may well have seen in the *Times* a No. 10 spokesman saying that the "Prime Minister is interested in giving the gas industry a climate pass in the transition to nuclear and renewables", in light of the current energy crisis. What is your view on that?

Dan Monzani: I am slightly surprised in a way because, although we clearly need to respond to the new crisis, which is about gas dependence and particularly Russian use or supply of gas, in many ways a lot of the things we need to do for net zero are highly aligned with that. They are also about reducing the use of gas. That is not say that you should not increase domestic production of course, but you would want to see actions that pushed harder on electrification or the reduction of gas that were consistent with the existing net-zero targets at the same time, at least, as those other targets.

The Chair: I see some people have said that this is an opportunity to supercharge the transition; others are saying you cannot do that and have to look more at gas in the near term. Are you more in the former camp?

Dan Monzani: It depends on what you think the problem is right now. Do we have an immediate problem with gas security of supply? I do not think we do. We have highly diverse sources of gas coming into this country and we have capacity that exceeds the highest amount of demand that we have seen on a winter's day. Even if you stress that by assuming that the single largest piece of infrastructure is broken, we still have enough supply coming into the UK.

We have a big affordability problem, because the cost of that gas will be very high. We are part of the European and global market. I would focus on that problem. In any case, even if you were trying to increase indigenous production, you would not be doing very much more than we are doing at the moment for next winter. It would take three or four years to come on stream.

If you are looking further out, you might want to look at that as part of a number of measures. On that timescale, you would also be looking at measures that reduce gas use through electrical storage, for example, or insulation, or indeed building out more wind.

- Q76 **Viscount Chandos:** Professor Helm has just argued that you cannot separate security of supply from price, because there is a price at which supply can be achieved. Plus saying there is not a problem with security of supply is based on an assumption that, for the immediate future at least, Europe continues to take gas from Russia.

Dan Monzani: There are a couple of things there. Absolutely, Europe has a very different situation on security of supply. It does not have the diversity of supply that the UK has. As a whole, Europe takes 30% to 40% of its gas from Russia. The further east you go, the more dependent those countries are. Some are taking more than 75% of their annual gas from Russia, so it is a very different situation. They do not have that diversity of supply.

In the UK, Russian gas has—as far as I can remember—never been above 2% to 3% in a year and was very substitutable. That was entirely about price: was it cheaper to take gas coming from Yamal or from across the Atlantic? Russian dependence in the UK is not the same.

Of course, we are in these terrible circumstances because of the invasion of Ukraine, so we may want to co-ordinate with Europe. It seems imperative to me that Europe is able to fill up its storage during the next summer, so it may be that we take steps to reduce our gas usage so that more will go into European storage. That might mean running our coal plants a bit harder. Subject to safety, it may mean keeping the nuclear plants on for a little longer. It is at that level though, rather than the fact that we are dependent on Russian gas for our security.

- Q77 **The Chair:** Given your experience, have we been thinking far enough ahead about this kind of eventuality? Could you comment on that?

Dan Monzani: Interestingly, one of the things I was responsible for in government was a five-year review of gas security, about five years ago. That modelled precisely the possibility of Russia shutting off gas for 12 months. If you do it at an entirely volume level, we can manage in that situation. Of course the geopolitical consequence, which we are seeing now, and the cost implications are absolutely astronomic.

The Chair: What happened with the inquiry then?

Dan Monzani: It was published.

The Chair: It was published. What action was taken as a result?

Dan Monzani: It was largely an action that looked, for example, at whether the Government should intervene in domestic gas storage. It concluded it should not.

The Chair: What other things did it suggest? Can you remember?

Dan Monzani: From the top of my head, I think the main bit was to test whether the market would continue to supply and the conclusion was, yes, at a price. You then have a choice about whether you want to insure against that price or self-insure as a country so that, when the prices go very high as we are seeing now, you are prepared to intervene and deal with that or need to act.

The Chair: Sorry; I do not know enough about it. Did it get into storage issues and other things, contingency measures that should have been taken, between when the report was written five years ago and today?

Dan Monzani: I do not recall any recommendation that was not done, but I would have to check back on that.

Q78 **Lord Fox:** All across the country people are receiving emails or letters from their gas suppliers, more or less doubling or tripling their monthly payments. Security of supply does not seem to be the relevant issue here. We keep hearing politicians saying, "We have enough gas" but that is not the problem.

Dan Monzani: I agree.

Lord Fox: In a sense, how do we focus on the affordability issue? That appears to be the issue that we should be concerned about, rather than to keep saying, "It does not matter. We have enough gas".

Dan Monzani: I wholly agree. The reason I was making the point that there is sufficient gas supply is precisely to try to focus us on the affordability challenge. I did some rough calculations before this and, if you take some reasonable assumptions about where the price cap is now and where it may go in the autumn, you could see something of the order of £38 billion being sucked out of household budgets this year. That is something in the order of putting 6 pence on income tax but never seeing the money come into the Treasury. That is an absolutely huge amount of money coming out of the economy. It strikes me as essential that we try to spread that cost over time. That requires the Exchequer to intervene in the short run, but to be very clear how it will get that money back in the longer term.

The second point is that we should take the opportunity to put ourselves on a better footing in the future. I heard some of Professor Helm's comments and I will make some of my own on how we are not set up in the most efficient way. We are not set up in a way that penalises polluters rather than cleaner technologies or that rewards the things you need on the system for the physical dynamics of the system. We do not do enough to shield those who cannot make the transition from the costs of it.

For example, a lot of the costs of decarbonising the electricity system are on the electricity bill. Indeed, there are taxes on carbon in the electricity system. They do not exist on domestic gas, for example. That is a real problem when it comes to trying to incentivise people to move to heat pumps, as we need to do, because the retail price of electricity is four or

five times that of gas. That holds now, even though gas prices are what they are. I am not suggesting we whack a carbon tax on gas straightaway, but I think we could pay now to smooth the costs and pay back by equalising some carbon taxes once gas prices fall back to historic levels. We should take the opportunity to do something about the inequities in the current system, as well as dealing with the short term.

Q79 Lord King of Lothbury: I have a very brief question. The observation that the UK does not import a high proportion of its gas consumption from Russia does not seem terribly comforting when you observe that an obstruction of supply from Russia pushes the world price up and our strategy is to buy at that price. The second-round effect of an interruption of that kind seems enormous. I just do not think the statistics on how much we buy directly from Russia are very helpful in thinking about security of supply because, if your £38 billion argument is correct, that is an awfully large amount of money to be paying to ensure apparent physical security of supply.

Dan Monzani: I agree. I am trying to make the precise point that it is about affordability, rather than the number of molecules that come here or where they can come from. But I think we are in a different position to Europe in that we will get molecules here. It is more difficult to see that if you are Romania, for example.

The other point is, if you introduce new supply, for example, in the North Sea, it will be at the market price. It will not lower our price. You are exposed to the same market dynamics, in that we are taking one of the largest suppliers of gas out of the world economy at the moment. That is the dynamic we are facing and that is the affordability challenge, which we need to take head on rather than looking at the physical availability of gas particularly.

Lord King of Lothbury: But does that not suggest that things like a strategic reserve of natural gas and more storage facilities would be a natural part of any appropriate policy?

Dan Monzani: It might well do. I would caution that by saying that government intervention in specific areas can have a knock-on impact that is detrimental in other areas. I am sure I am not telling you anything you do not know but, were government to intervene with one particular storage technology, let us say gas storage, that might knock out the economic case for new LNG and vice versa. What the market has done over the last 20 years, without government intervention in gas, is added an awful lot of new capacity to bring gas into the UK. That has diversified our available sources of gas, so it has been positive.

It might be, as we found in electricity, that there comes a time when you see more closures than you feel secure about to handle peak swings in gas demand. That might be the time at which we need to think about more intervention into gas markets to maintain a level of capacity, but I do not think we are at that point yet, because the market is bringing

forward sufficient capacity in a system where demand is shrinking year on year.

Q80 Lord Griffiths of Fforestfach: If at present you were asked by the Prime Minister to give advice on what we should do to run down fossil fuels, on the criteria of affordability and security, what advice would you give?

Dan Monzani: It partly depends on the timeframe. Over the course of this year, we ought to be prepared to consider coal plants running more hours to use less gas. I do not see that as inconsistent with the long-term direction of travel.

Lord Griffiths of Fforestfach: How long would they carry on running for?

Dan Monzani: I am not sure I have seen anything yet to suggest they should not come off at the time they are regulated to come off now, which is October 2024, so that is two more winters. It might not be necessary, but I do not think we should be too worried about that if it happens in the short run.

Over a planning horizon, say four or five years plus, where you have some real optionality, I would be focusing on a lot of the things that Government do at the moment and potentially pushing them harder. Those are things like investment in nuclear and in more wind, and possibly looking at how we can improve the deployment rates of wind, because there are serious barriers on things like planning and connection to the grid infrastructure. I would also be looking at things that the Government acknowledge they need to do more on, for example insulation and heat, and trying to push those a lot harder.

Another point I want to make, which I think I heard Professor Helm making as well, is that it is not just about getting the technology on to the system and plugging it in. You also need to redesign the system so that it works effectively and efficiently together. I think that is an important, under-realised part of this transition. For example, if you have a lot of wind and electric vehicles coming on the system, they are potentially a very good match for each other, but only if the market design allows you to see the price signals that encourage you to discharge and charge at the right times.

The integration part is very important. If you see that, you would see more technologies that are beneficial complements to wind coming on and different tenures of storage—for example, both batteries and long-duration storage. Those would be the areas I would look at pushing forward on deployment, but I would also look at integration.

Lord Griffiths of Fforestfach: If you were to have a drink with, say, the chief executive of Shell or BP, what do you think you would tell them?

Dan Monzani: Shell and BP are doing a couple of things. They are obviously heavily invested in gas, and North Sea extraction is relatively

low emission compared to other parts of the world. Clearly one point would be to keep reducing the scope 1 and 2 emissions. The second would be to invest in other parts of the transition. We will move not to a world where we do not have any gas, because I think gas will still be a very important part of the system, but one that is predominantly about gas for electricity and then the electricity system. As they are, I would encourage them to invest in electricity, hydrogen and various other things.

Q81 The Chair: I know that politicians love action plans so, just to pick up on where Lord Griffiths was heading in his question, given the crisis we are facing, what would the action plan be for the Government to address it?

Dan Monzani: Lord help us.

The Chair: You mentioned home insulation, for example. I see the European Union, in its tentative plan which has been leaked, is focusing on that. You mentioned earlier that you would also consider firing up coal-fired power stations. What would be the five priorities that you would have if you were the Government?

Dan Monzani: Again, you have to answer that over two different timeframes, do you not? There is the immediate, "What are we doing for next winter?" and I have mentioned a couple of things you would do there. I think you would push as hard as you can on things like insulation in that timeframe, but be prepared to run coal harder. The big question there is affordability in the short run: how do you deal with that amount of money being sucked out of the economy?

Looking to the longer term, I could give you a very long list of things I would do, but part of my answer is that there needs to be an integrated plan on how this fits together. That is partly an institutional question. We are not in a position where we can just plug things into the system as is. We need to plan the whole system, so that includes the networks, but it includes the market design and things like digital infrastructure to allow some of these markets to interact. I will give you an example, but my general point is some form of institutional response, whether it is a commission or giving the role to the system operator to develop a plan that is fully integrated to get to 2035.

The example I want to give is around networks. We basically have a physical electricity network that connects our centres of demand in the south with, principally, the old coalfields from the industrial revolution, on top of which we built coal-powered stations. That spine was built for a world with a certain assumption about what technologies we were going to use. We now have a market system that penalises people for their distance from that physical spine, because you want to reduce the costs of building extra network. But that is not the target operating model, is it? We are going to a world where we will have nuclear, which will be on the coast, and will have wind, which will be off the coasts and so forth.

We need a system that says, "Where are we going to?" then sets up the market infrastructure around getting us towards that target destination,

rather than penalising people for being distant from the old system. It is all about that integration. Beyond that, I could probably come up with a list of various areas where we should go further and harder, but I am sure you will have heard those from others as well. It is that integration point I want to hammer home.

Q82 Lord Rooker: It is the same point I raised with Sir Dieter regarding green finance. Basically, should nuclear and gas be included in the UK's green taxonomy? Bearing in mind the answer he gave us, should there be a taxonomy in the first place? I would be interested to hear your views on that.

The final point I asked him was about the fact that, if we burn the gas produced and use the carbon capture technology, it is a lot greener than it would be if we did not. There is therefore a prospect for it. How do we take account of that?

Dan Monzani: I think it is a perfectly legitimate question to ask whether you should have a taxonomy. It is inevitably going to be fairly simplistic because that is the point: you are trying to make it simple for investors to understand what is green and what is not. The truth is it is not that simple. Gas is a good example. In 2015, I would probably have said to include gas in the taxonomy. What role is it playing? It is allowing you to complement wind and squeeze out coal from the system and it did that spectacularly well. Having investment in gas at that point was a sensible part of the transition.

In 2025, coal has hopefully gone, after perhaps a year or two of making a brief comeback, but what is gas doing? It is doing very little in volume because there will be a lot of wind and so forth on the system, but it is providing system services. It is turning on because you cannot get the wind power through the constraint on the network from Scotland to England. It is turning on because you need to regulate the voltage locally. If you were to change the market design, alternative technologies like long-duration storage, pumped hydro, for example, can do some of those things. At that point in time, gas is no longer a green option. If we are going to have a taxonomy, I would not include gas because you are deliberately being simple and directional. That is the direction we are going in, so I would not include it.

You also asked about nuclear. I would most certainly include nuclear because it is a low-carbon technology.

Q83 The Chair: Do you think overall taxonomies are a help or a hindrance, given where we are right now, in encouraging investment?

Dan Monzani: I do not think they are the most important part of it. They will send a signal to investors; being clear with investors is helpful. I think that corporate disclosure is helpful. Some of the things that are associated with the taxonomy, therefore, about where people are perhaps more exposed to technologies that are white elephants, are generally helpful, but the real investments get made based on the real economics. If you put in place the right signals, carbon prices, policy supports and

reforms to merchant markets, that will drive investment. I would not want to lose sight of market design in favour of a taxonomy, however helpful it is for some investors.

Q84 Lord Fox: Following up on that before I ask the question I have been assigned, with the current trends of corporate governance, do you think not being in the taxonomy would be a problem for boards to explain why they are investing in a particular technology?

Dan Monzani: I am not sure it is a problem for boards to have to explain that. We are already seeing that because of ESG, without a taxonomy; boards are having to ask themselves why they are investing in gas.

Lord Fox: If gas were included in a taxonomy, they would not have that problem, presumably.

Dan Monzani: But then what is not included in the taxonomy?

Lord Fox: I do not know. You would have to ask the European Union.

Dan Monzani: If there is nothing that is not included, you would not really have a taxonomy anymore. You either do not do it and let people work out the very complex nuances of what is—

Lord Fox: I am not arguing in favour of taxonomy; I am merely observing taxonomies that currently exist. Whether the presence within a taxonomy or not will affect a board's capacity to invest in technology or not, you seem to be saying no.

Dan Monzani: I think the economics will dictate that primarily, but it will probably cause a pause for thought and the board to ask itself whether this is the right risk to take on.

Q85 Lord Fox: Now I am asking the Baroness Noakes question and I think I will—not for the first time—find myself in the same place as she is. What role should the Bank of England have in green finance?

Dan Monzani: I am really no central banker, so I am cautious not to answer this one too strongly.

Lord Fox: There is one on my left.

Dan Monzani: Yes, exactly. However, I have a couple of comments. It strikes me that the Bank of England is trying to mainstream this into its core activities, which seems like the right approach. If there are real physical risks in the economy from climate change that will have a financial impact, the Bank of England ought to take them into account and it would be remiss not to. Trying to mainstream the impact of climate change within prudential regulation seems like a good approach to me.

Lord Fox: Again, this might not be a fair question, given where you are coming from, but do you think that the Bank has sufficient data and sufficient quality of data to be able to assess those risks?

Dan Monzani: It will clearly need to upgrade its methodologies, partly because, as with most of us—we are a forecaster as well—you look at historical data as one of your data series. A lot of this is about a change from history because of a disjunctive event, so it will need to update its methodologies and not rely entirely on historical data. I think it has acknowledged that, in fact, as most forecasters thinking about this have.

Q86 **Viscount Chandos:** You have already mentioned storage and addressing the problem of intermittency with renewable energy. What role should the Government have in picking technologies and, whatever that role is, how do they encourage the development and financing of storage?

Dan Monzani: Generally speaking, I think the Government should be very careful about picking technologies, for all the reasons that you have heard rehearsed this afternoon about it opening up a lobby approach and it not necessarily being easy to filter out what the right answers are. Also innovation often surprises you—it particularly surprises officials—and markets are very good at bringing that forward. I think they should focus on setting up markets that will correctly price the thing the system needs.

For example, with most relevance to storage, that means the variability with time and place is particularly important. At the moment, it is not very clear in the wholesale market. It is always completely insulated at a domestic level. There are not very many time-of-use signals, which means, if you are thinking about one form of storage, the electric vehicle, it is not really giving the right signals about when it should operate.

At a grid scale, the lack of locational signals and the fact that we have one single national price zone means that you get system actions, which are when the system operator steps in to do something that is physically necessary for the system that the market has not provided. This causes big increases in costs in the balancing market that are not very easy to bank, because it is not clear what particular need of the system is attributed to that. Greater clarity in those market structures would allow storage to come through.

What might I expect to come through if there were those reforms? We think you would see more storage of all different tenures. We did a recent report on long-duration energy storage. That is a range of technologies, from pumped hydro to newer technologies like liquid air, compressed air and vanadium flow batteries. We think you could need as much as 24 gigawatts more long-duration storage—that is longer than four hours—by 2035.

Viscount Chandos: Do you have the confidence that I got the impression Professor Helm has that auctions and that sort of market competition deliver the right result?

Dan Monzani: I do not entirely. I agree with Professor Helm around the importance of having markets for capacity and different technologies competing against each other. The capacity market has been a relative

success in this country, partly because it allowed central buyers to be surprised by the results, by innovation, but it is not just about capacity. It is also about dispatch signals and the flexibility of those assets. Wholesale markets remain important and the business case for a lot of different tenures of battery will be around either that wholesale market arbitrage at different times or system services.

I have a lot of faith in markets to deliver the right technologies if you set them up to correctly reward the physical properties that the system needs, but it is not just about capacity. It is not just about making sure the kit is there; it is about making sure it operates in the way it needs to.

Q87 The Chair: Can I ask about a different point on the strategic storage for this winter and how we might be tackling the crisis? I was interested in your report, where you say that "Storage would play a key role in meeting winter demand"—I take it that is this winter—"but could require an initial investment of EUR 60-100 billion and likely require Government intervention". This is from a European perspective. Can you say a little more about your thinking on that and what role the UK would play?

Dan Monzani: We have done some quick analysis using our commodities model to look at what the shortfall in European gas supply would be to meet standard European demand, if you had no Russian gas at all, which is quite a strong assumption but one we are increasingly testing. We found that, if you got storage levels in Europe up to 90%-plus, you could meet that demand, alongside a number of smaller actions, including more coal and more nuclear wherever possible, basically, increasing some flows from north Africa and so on.

The biggest thing is about making sure that storage is full, but it is eye-wateringly expensive to fill up storage at the moment. That is where our €60 billion to €100 billion number comes from. Will private investors invest in that now, in the expectation that it is even more expensive in the winter? I do not know. I think it will probably require government intervention at a European level, either to compel it or to provide a put option, so that they are insulated from the downside, or some other intervention, but that is what it would take to make sure you could have no Russian gas in that situation.

Lord Fox: Does the European Union have the practical wherewithal to deliver that degree of storage, in that space of time?

Dan Monzani: I do not know. You could have a partial effect at a national level. The German Government could do it in Germany but, as an integrated system, it would work much better if everybody did it.

The Chair: Should we be doing similar here?

Dan Monzani: It depends. From a UK perspective, I do not think we need to. We have relatively limited storage anyway. We are more reliant on our own production or LNG or interconnection to the continent, although we could probably just about do without that. If we wanted to act to help them fill up their storage by reducing our gas demand, it

would require actions here as well, like running coal rather than gas plant.

Q88 Lord Stern of Brentford: My question is in a similar spirit but looks a bit further forward into systems as a whole over the next 15 years or so. From that perspective, where would you identify—if there are and there probably are—significant areas of underinvestment in the whole energy system and energy mix, and the reasons for those underinvestments from policy or other things?

Dan Monzani: It is easy to understate the degree of step-up we have to take to get to those net-zero targets, even more so if we want to do it more urgently to get rid of a reliance on gas although, as I said before, I think we will still be using gas well into the future. There is a lot that the Government are already doing, for example annual CfD auctions, nuclear and so on. I think you could do some of those things faster, but more on the demand side and the electrification side, so heat in homes and industry.

I will not repeat myself, but I think it is so important to make sure that is done as part of an integrated plan, otherwise you will end up with these silos of wind farms here and silos of CCUS here. You will not be able to use the wind because it will be plugged into the wrong bit of the system and be behind a constraint, and you will not have a market signal to bring forward something that can make use of that.

There is also a lot of private capital, so I am hesitant to say there is not enough happening in storage, because there is private capital going into that. We are beginning to see longer-duration storage but possibly not at the level needed to get to those 24 gigawatts of long-duration storage.

The other area where the Government might think about doing more—indeed, they are—is network investment. There was quite a big amount put into price controls, but the area I hope they go even further on is the offshore transmission network, partly because it might need some government money to seed that for earlier progress than waiting for price controls. That allows you to increase your interconnection with the continent, which lets you share resources, and that helps with the intermittency problem because you have more diverse sources of power. It also makes it quicker to put the wind farms into that system because you have preplanned it, presurveyed it, prebuilt it and you just put in those additional wind farms. Investment is about integration and looking for those strategic investments like the offshore transmission network that can catalyse further efficient investment.

Lord Stern of Brentford: In shorthand, you are saying that the whole area around buildings and efficiency, on the one hand, and the integrative investments like grids and offshore transmission are part of the same story, on the other?

Dan Monzani: Yes.

Lord Stern of Brentford: Why are those not happening?

Dan Monzani: To some extent the grid stuff is happening. There is an offshore transition network review. It sometimes happens after decisions are made on generation. That tends to be the first decision that people want to make. You probably ought to do it in a more planned way, with the enablers and integrative things that you need to do this sensibly. Sometimes you need to build a supply chain. With heat pumps, for example, you need to build the supply chain to be able to look at the run rate. We could probably go further and harder at that in the amount we are trying to do. I certainly think we could be getting the price signals right, which I talked about earlier, and make sure that we are not making it more expensive to run a highly efficient heat pump than it is to run a gas-condensing boiler.

Lord Stern of Brentford: That is the relative price of electricity and gas, yes?

Dan Monzani: A heat pump is maybe 170% efficient, whereas a gas boiler might be 70% efficient, but heat pumps are more expensive to run because electricity is four or five times as expensive as gas.

Q89 **Lord Stern of Brentford:** Again, quickly—I am sorry; we are running out of time—where would you see that government policies have been particularly successful or, more explicitly, would you include contracts for difference as part of that?

Dan Monzani: Undoubtedly contracts for difference have been phenomenally successful in driving deployment and cost of capital down. That does not automatically mean that they are the right instruments, unamended, for the future because, although they have driven the cost of capital down and driven the capital requirements of those wind farms down, if you built an offshore transmission network, you could take that cost off the wind farm, at which point you have again halved the capital costs of building them. You might, therefore, be able to introduce slightly more merchant signals, by which I mean more exposure to actual wholesale prices than a fixed price, and that might be beneficial for the system costs. They have been brilliantly successful at driving down the cost of capital, but that needs to be balanced against the rising system costs now, which might require some amendment.

Q90 **Baroness Noakes:** You heard Professor Helm's view on carbon pricing, which he is in favour of across the whole economy and for imports. I am interested in your own views on carbon pricing and the role it has to play in the transition to net zero.

Dan Monzani: From my previous comments, you will probably guess that I think the consistency of carbon price is hugely important. I have made that point on heat several times, but it is also true elsewhere. It seems to me that we should look very carefully at how we equalise those and there might be an opportunity there to raise revenue that can also help with the transition. I agree very strongly with what Professor Helm was saying about making use of that revenue to enable the transition in a fair way for everyone.

One of the incentives that gives me some trouble is that we give a massive tax incentive for people leasing electric vehicles. That is great because we want to drive forward electric vehicles, but then higher-rate taxpayers are better off. Poorer people are paying the same share of network reinforcements to enable electric vehicles to come on to the system. It does not mean that is wrong, but it means you need to do something else as well. If there was some revenue from carbon taxes, that would be another beneficial use of that.

Baroness Noakes: The Treasury does not normally like hypothecated taxes.

Dan Monzani: I am not necessarily hypothecating in a strict sense, but spending maybe. It does not like that either, to be fair.

The Chair: I am conscious that my colleagues probably want to go to watch President Zelensky, so I apologise. This has been an extremely useful session. There is a number of things on your company's website that I think are behind a paywall, in particular a long-duration electricity storage paper, which looks very interesting. Could you share that with us? Also, in your scenario of a halt to Russian gas imports, you have a very good page about the actions that the European Union might take. It is slide 14. Is there any chance that, sometime in the near future, bringing together what we have been discussing, you might look at the actions you think the British Government should be taking?

Dan Monzani: We can see if we have a public version of that long-duration storage report. I can send you that straightaway, no problem at all. Did you want me to answer on the other point now?

The Chair: Let us do that on paper, if that is okay. That would be very good indeed. Thank you very much. I am sorry to have kept you and to curtail it, but I hope you understand.