HOUSE OF LORDS

Industry and Regulators Committee

Corrected oral evidence: Ofgem and net zero

Tuesday 2 November 2021

10.30 am

Watch the meeting

Members present: Lord Hollick (The Chair); Lord Allen of Kensington; Lord Blackwell; Baroness Bowles of Berkhamsted; Lord Burns; Lord Curry of Kirkharle; Baroness Donaghy; Lord Eatwell; Lord Grade of Yarmouth; Baroness Noakes; Lord Reay; Lord Sharkey.

Evidence Session No. 12 Heard in Public Questions 120 - 129

Witnesses

I: Kristoffer Böttzauw, Director General, Danish Energy Agency; Alejandro Hernández, Head of Renewable Integration and Secure Electricity Unit, International Energy Agency.

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Examination of witness

Kristoffer Böttzauw and Alejandro Hernández.

Q120 **The Chair:** Good morning and welcome to this meeting of the Industry and Regulators Committee's inquiry into Ofgem and net zero. I am pleased to tell you that we are joined today by two witnesses from bodies outside of the UK, who can give us their perspective on our plans here in the UK. Kristoffer Böttzauw is the director general of the Danish Energy Agency and Alejandro Hernández is the head of the renewable integration and secure electricity unit at the International Energy Agency, which has just published a very substantial document on net zero. I am sure we will have some questions about that.

During the course of our sessions we have heard quite a lot of evidence that particularly the electricity distribution and gas distribution systems, whether natural gas or hydrogen, need to be less centralised and that the energy system of the future needs to be much more consumer facing. The arrangements between the energy suppliers and the customers will be far more dynamic and the interaction will flow both ways. Last week we had two very interesting witnesses who said that the current system needed to be reshaped to be more customer facing and customer friendly, and in particular to offer the flexibility that the new energy systems will have. Is that something you recognise and is it something you feel is given adequate attention?

Kristoffer Böttzauw: Thank you very much for inviting me as a witness. I am not an expert on British energy policy but I am an expert on Danish energy policy and the green transition of Denmark.

I would say that the green transition comes with more and more decentralised energy production. When it comes to district heating and power generation, we expect that we will go from a fossil-fuel based economy with large-scale centralised production to a decentralised producer and consumer environment, and you will see prosumers both producing and using energy at the same time. We need to think of our energy system as much more decentralised and much more integrated.

The Chair: You had frozen. We are back with you now.

Kristoffer Böttzauw: I do not know where I froze but my point is that we will see much more decentralised generation and we will see prosumers, meaning that we will have producers and consumers in the same entity. We need to look at our energy system in a new way and at how to integrate the different sectors of our energy system—meaning gas, electricity, heating, industry and transport—in the years to come. The energy sector and the energy infrastructure need to be able to be decentralised and integrated at the same time.

The Chair: Is that happening in Denmark?

Kristoffer Böttzauw: Yes, I believe so. If you look at a map from 1980, you will see that we have eight sites in Denmark where we have power

generation and heating generation for district heating. If you look at a map from 2020, you can see that we have hundreds of producers—wind turbines, solar and district heating production out in the rural areas. We will see much more of that.

Alejandro Hernández: On the generation side, in the future we will have resources that will be distributed closer to the premises of the consumers and a very large number of sources coming from long distances, for instance from offshore wind.

Something that is very important to highlight is the way demand will behave. It will be very important for us to be able to take advantage of all these variable resources. Beyond the fact of what you produce, how you consume will make a huge difference. I am going to borrow a sentence from an operator in the US. We are going from systems in which we used to schedule supply and forecast demand to exactly the opposite: we will go to systems in which more and more we will forecast supply and then schedule demand.

What this means is that, for instance, even right now in many places water heaters at home could already be interacting with the system, because during the night there will be hours in which it will be much more expensive or much cheaper than during the day. One of the big changes that should happen is the way demand interacts. Water heaters are already a mature technology. It is unfortunate that they are not being used in many countries in order to take advantage of hours of large shares of renewables, for instance.

In the coming years, with the number of electric vehicles that are coming, it is a risk that we expect consumers to behave in the same way as they are doing right now with other devices, which have no way to interact with the system. They are not providing the flexibility to take advantage of the hours in which it is cheaper or to avoid the hours in which it is more expensive.

In that sense this is one of the big changes that we see in the future from a technological point of view. The demand side needs to be much more active than we see today. That should certainly come with changes in the way the relationship is developed.

Q121 **Baroness Bowles of Berkhamsted:** Thank you. My first question is to Alejandro. I am conscious that the International Energy Agency last month published the *World Energy Outlook 2021*, which indicated that the direction of travel was quite some way from a path towards stabilising global temperatures at 1.5 degrees centigrade. Indeed, we heard a lot about that at COP 26 yesterday.

Internationally, overall, to what extent are the currently announced policies sufficient to reach net-zero carbon emissions in the energy sector, which is obviously important in reaching the overall target? What progress is still needed and which are the most crucial policies to enable that?

Alejandro Hernández: The IEA has developed a few scenarios to inform policymakers of what the current pledges mean. There is a scenario called the announced pledges scenario, in which we consider all the countries that have announced pledges to 2050 or 2060. We can see that this is clearly far from what is needed to keep to 2 degrees centigrade; of course, it is even less for the 1.5 degrees centigrade objective. If we put all the countries together that have already made these pledges we are still very far from getting to those levels.

We have developed another scenario, our net-zero scenario. To give a point of comparison, the speed at which coal should stopped being used to produce electricity should be much faster. In the announced pledges scenario it is only a 10% decline by 2030, whereas in the net-zero scenario it should be a 55% reduction in the use of coal in the power system. This is a measure of the gap between current commitments and one of the paths to zero degrees.

The question of policies is a very broad one, but there are certain milestones in the net-zero scenario that are very clear. I will start with the very mature technologies. The first step is energy efficiency. There are many measures related to efficiency standards, for instance, for mature technologies that could already be developed. The electricity sector is certainly one that has to be decarbonised faster. The fact we have solar PV and wind as mature technologies allows a large amount of decarbonisation to be achieved very quickly in the coming years.

We then get into other sectors where there are technologies out there but which are still not at the commercialisation stage. Even if they are mature from a technological point of view they still have not reduced the cost for them to be deployed. There are many of these. We are talking about, for instance, hydrogen, or ammonia for many other industrial purposes. As we go down the decarbonisation path there are certain sectors—steel, industry, transport, heavy transport—that are harder and harder to decarbonise. Therefore, a lot of the policies go to the development of those technologies. I am happy to develop that further if needed.

Q122 **Baroness Bowles of Berkhamsted:** Thank you very much. What is your view of the sufficiency of the UK's announcements compared with other countries? Are there other countries or systems that represent best practice in decarbonising energy?

Kristoffer, has the Danish Government announced a complete suite of policies sufficient to meet Denmark's net-zero emissions target? As we are particularly looking at the energy sector here, what lessons have you learned in developing those policies?

I will go to Alejandro first on whether you have any comments on the UK and then to Kristoffer.

Alejandro Hernández: The IEA has not published precise numbers for the UK so I would prefer to refrain from doing a measurement of that. Of course, it is very commendable that the UK has very clear targets. It has already added, for instance, aviation and shipping. This is a very welcome

step, going into emissions that not only are UK-based but relate to the international environment.

In general, when we compare all the countries that have pledges what we find in our net-zero scenario is that not only is it about where you want to be in 2050 but it matters how fast you go, because that adds to the stock of emissions in the atmosphere. Every emission that you save today helps you a lot to get to 1.5 degrees. I will not single out the UK but in general what we see is that our net-zero scenario makes decarbonisation happen faster.

Kristoffer Böttzauw: The Danish Government have a goal to reduce CO_2 emissions by 50% to 54% by 2025 compared with 1990, by 70% in 2030, and to be carbon neutral in 2050. If you look at the 2025 and 2030 goals, we are almost at the target, especially if you look at the energy sector. We have managed to reduce the fossil fuel part of the energy sector by almost 90% or so within the last five to 30 years, meaning that today more than half of our power production comes from wind energy alone and almost 70% comes from renewables in Denmark.

We still have some issues when it comes to agriculture. Denmark is a largely agricultural society. We have not managed to find all the technologies and regulations needed to bring down the emissions from the agricultural sector. We still need to do some in the transportation sector as well.

However, looking at the three sectors, for the energy sector I think we have the technologies, we know what to do and we have proven for decades that it is possible to have a large amount of renewable energy in your power system without questioning your security of supply. If you look at the transport sector, I would say that we have the technologies. We still need consumers to buy electric cars but they are there and are coming up. The latest numbers that I read were that about half of all the cars bought this year are hybrid or purely electrified, so it is coming faster than we expected. If you look at—[*Inaudible*]—Europe and globally. That is a more difficult sector to solve.

We are on a path and we are getting closer and closer to our targets. When my current Minister came into power in 2019 we had a long way to go. After two years we are two-thirds of the way to reaching our targets in 2030. We have shown it is possible, payable and doable. However, just to underline it, the agricultural sector is still a hard nut.

Q123 **Lord Eatwell:** Good morning, gentlemen. I am interested in the security of the system as a whole, especially security of supply. Could I turn to Alejandro first? Both of you endorse the notion of decentralisation. To me, decentralisation carries very significant risks in security of supply and harmonisation of supply across the overall economy. It seems to me that decentralisation carries a particular systemic risk in that respect. Secondly, the process of transition also seems to contain systemic risks. I wonder whether you could comment on your evaluation of those two systemic risks.

Alejandro Hernández: Regarding the decentralisation part, it is relevant to understand the fact that we have, as I said, a demand side that will be much more active. This will transform the system in the sense that today we have very few points of production—very large plants that in general are controlled by the system operator. The number of devices is very small. We will go to a system in which there will be electric vehicles and there could be water heaters, as I mentioned, or batteries on premises and in households. There could be many things. We do not expect the consumers, by themselves, to check what the price is in the wholesale market every five minutes. However, it is very likely that we will go through digitalisation.

One of the topics that certainly has to be addressed is cyber resilience. To ensure that these devices interact with the system in the right way when there is stress in the system for them to help to reduce your consumption when there are moments of scarcity and all these kinds of things, and even to react in moments when there are not certain contingencies, we will go through a good amount of digitalisation. Digitalisation opens a large number of opportunities to get efficiencies into the decarbonised system, but it has to come with a good dose of being careful about how we manage all these devices. We also have to check all the privacy issues that are happening already in other areas of the economy and which go with digitalisation.

On the energy-transition side, we also need to understand that for the private sector it would be operated in a very different way compared to what was done 10 years ago. Before, we used to have very large plants providing on baseload the bulk of the energy and maybe a few plants that would be bigger that will be providing some flexibility to the system. We were not expecting any reaction from the demand side. During the last century the demand side was very passive.

For the system to operate safely you have certain services, such as inertia and ramps, where you have a big capacity and energy, of course. Now we are going to systems in which a coal plant will no longer provide all those at the same time. Now we will have more technologies, like variable renewables, which are able to provide energy but cannot ramp up, for instance. They can provide very specific stability services, which is a topic more for the power system engineers, but they cannot provide inertia.

So the systems will change in the sense that you can no longer rely on only one technology to provide all the services, so you will need an efficient basket of technologies, which could include hydro and some other technologies for stability so you have a large share of renewables. This is how we will change, in the sense that the optimal basket, the optimal bundle, of technologies that will be able to provide those services will be much more varied.

Q124 **Lord Eatwell:** That was very helpful, thank you very much. Kristoffer, I would like your reaction to the idea that decentralisation may create some degree of incoherence in the management of the system as a whole

and the risks associated with transition. I would like your reflections in general and your specific reflections on how you are handling these issues in Denmark.

Kristoffer Böttzauw: Thank you very much. I would say that we already have some kind of decentralised system in Denmark, as mentioned before. We do not see any problems regarding security of supply. Actually, we are at the top in Europe. We have power in the switch 99.996% of the year, meaning that we do not for only 20 minutes. I will explain those 20 minutes.

Lord Eatwell: You will need to explain those 20 minutes.

Kristoffer Böttzauw: Actually, we have the power outage because of the network, not because of the production.

The future problem, from my perspective, will be the energy sources, not the decentralisation. I think Alejandro was saying something similar. I foresee that in Denmark we will focus a lot on wind energy. That makes our system more vulnerable to insecurity of supply; when there is no wind we will have problems. So we may need to look more at having a mix of energy sources, with storage and interconnectors to other countries as the backbone of our security of supply in the future.

We have so much security of supply in Denmark because of our connections to the Norwegian hydro battery. When we have no power from the wind we can connect to Norway, and it has the hydro for us. We cannot expect Norway to be the battery for northern Europe in the future, so we need to look at new technologies like Power2X, biogas and some of the fuels that you can store and use when you have no sun and you have no wind.

Lord Eatwell: Thank you very much.

Q125 **Lord Allen of Kensington:** Good morning, gentlemen. I think it is fair to say the energy trilemma of security of supply, making energy affordable to customers and decarbonising energy is one faced by Governments around the world. No doubt we will be hearing more about that at COP 26 over the coming days.

Kristoffer, Denmark is ranked number three in the World Energy Trilemma Index. I am keen to understand the extent to which policy has responsibility for balancing these three often divergent objectives been given to the Danish Energy Agency. Does that differ materially from the task given to Ofcom here in the UK? How does the Danish Energy Agency approach managing these three often conflicting objectives or targets?

Kristoffer Böttzauw: Thank you very much. I am not sure I can give you a comparison between Denmark and Ofgem. Whether we are on the same line or have the same possibilities I cannot say. But I can give you a short review of what we are doing in Denmark regarding the energy trilemma.

As I said before, we are lucky that we have the connection to Norway, because it gives us very high security of supply even though we have variable renewable energy in our energy system. I also represent the Government and they agree that it needs to be payable for the Danish consumer.

If we look at the renewables and the economic part of the trilemma, the CO_2 and climate targets are giving us a very important policy direction. There is no question that we need to reach 70% in 2030. Still, we need to do it in the best way and in an economically feasible way. We are looking, every day actually, at how to bring down the costs and how to create supporting schemes that support the market. I think we are almost at the point where wind and solar can be up in Denmark without public support. So, in the future, it will be more a question of the integration of the energy system and the price for integrating the different sectors. I see that as a future task for my agency.

I do believe that all countries will come to this question of how we can create an integrated energy system without raising the cost too much. If you look at wind energy and solar, the marginal cost of production is about zero, so there is just the investment cost in the beginning. Offshore and onshore wind is cheaper than new coal-fired power plants or gas-fired power plants in the Danish context, and I believe that it is the same in the UK.

To conclude, looking back at what we have been doing in Denmark, we have managed to cope with all three parts of the trilemma: having high security of supply, having a very large amount of renewables in the system, and still having energy prices that are payable for the Danish consumer.

Q126 **Lord Allen of Kensington:** We have a real advantage in that we have a major Danish company, Ørsted, pretty active here in the UK.

Alejandro, what is the broader international experience of making these trade-offs? I think Denmark clearly has a significant advantage in how it is structured. What are the international examples that we can compare with the trilemma? Are there any really good examples of best practice? One of the issues we are looking at is that significant upfront funding is required and whether that is funded by government through taxation or through the consumer. Do you have any examples of where we could learn from what other countries are doing?

Alejandro Hernández: We have seen that in effective jurisdictions there is smart allocation of the tasks with regard to the decarbonisation policy. Where it has worked, the ministries have kept to a specific task concerning how ambitious they want to be with, for instance, decarbonisation over the electricity sector. When they have good regulatory frameworks, they have pushed the affordability part to the regulators for them to implement or develop many of the tasks. The ministries' decisions are always based on numbers, of course—on how

much it costs and how far they will get. It always goes back to the regulators as to how to implement in the cheapest possible way.

I would say that how you separate this allocation of tasks is on the good side. What is harder, for instance, is when there is funding for innovation, as was mentioned; when we want to support technologies that are not in the lab anymore but are still not in the shops yet. This is one of the areas where it is harder to find good examples.

In that sense, I really like the experience of the Department of Energy in the US. It has a portfolio of companies in which it has invested a certain amount of public funds. The companies are not necessarily start-ups, but the technologies are very promising. This portfolio has profits on a wide range of technologies. I think this is a very smart way to foster innovation. We are always worried about picking winners, and obviously about putting public money in a technology that may not work. This is one of the good examples in one of the topics that I find harder to address.

Lord Allen of Kensington: Thank you very much. We have heard from a couple of other people giving evidence that they do not think the regulator is the best-placed player to be responsible for the policy of net zero. From your experience internationally, do you think Governments should be asking regulators, such as Ofcom or the Danish Energy Agency, to take the policy responsibility for net zero? What has been your experience?

Alejandro Hernández: On my side, this is something that has to stay with the ministries. The trick is to find a smart allocation of tasks, in the sense that they grow their objectives but they have to still be kept in the ministries. I do not think the regulators have the legitimacy and they were not built for that. But they were certainly built to come up with the most affordable way. If we are getting too much into the details, it might be a good idea to somehow try to push that into the regulatory arena while keeping the broad objectives on the ministry side. We have seen this in many jurisdictions and it has given good results.

Lord Allen of Kensington: Alejandro, thank you. Kristoffer, it is a delicate question. What are your views on that? Regarding the resources that you were given to take on this task, what will be also helpful is an indication of how many people are in the Danish Energy Agency.

Kristoffer Böttzauw: Thank you very much. The Danish Energy Agency has about 800 employees, but we also cover the Centre for Global Cooperation and Telecom. If you look at Danish national energy policy it is about 500 or so, maybe 600.

I still believe that an independent regulator is the best way to reach your target. In Denmark, the independent regulator's main task is to ensure that the heat and power sectors are run effectively and that customers do not have to pay more than is needed. The climate targets are more up to the Danish Energy Agency. My agency is part of the ministry and I report

to the Permanent Secretary and to the Minister. He can ask me to come up with new policies if he wants. He cannot ask the independent regulator to do anything at all. I do believe that the tasks and high-level policies—in the Danish way, of course—need to be at a political and agency level.

Lord Allen of Kensington: Very interesting. Thank you very much.

Q127 **Lord Burns:** Thank you very much, Lord Chair. Kristoffer, I would like to explore a little more this question of the relationship between the Danish energy regulator and the Government. You have already given us an outline of the issues that are for the regulator and the issues upon which they are independent. Is that independence set down in legislation or is it developed as a result of custom and practice? Could you say a little more about the issues upon which the regulator is independent and the issues upon which the regulator is not in the lead, where government is the body or the ministry giving the direction?

Kristoffer Böttzauw: Thank you very much. The independence of the utility regulator is in the regulations, is made by law. It says that the Minister appoints the director of the independent utility regulator. He or she will sit there for five years and be totally independent. The Minister has no authority over the person who is heading the independent regulator. Some of it comes from EU regulation and some of it comes from the Danish way of doing energy policy for decades. It is all written in the law for the independent regulator.

For the five-year period, the Minister, the Permanent Secretary and I have no formal way of adjusting the policy of the independent regulator. Of course, we have an ongoing dialogue, but the independent regulator is, indeed, independent. If you had invited the director, he would stress that he is absolutely independent and would take no orders from the Minister at all.

Lord Burns: Can you take us through the range of issues that independence covers, to what extent is it to do with customer protection, to what extent is it to do with pricing in the energy sector and so on?

Kristoffer Böttzauw: He is responsible for the heating, power and gas sector. His main task is to ensure that the companies are run effectively and do not push new costs to the customers. So he is the customer's best friend. He is not at all responsible for greening the sector. I have had several discussions with the director of the independent regulator about how he could look at more green initiatives, and the answer from the independent regulator is that it is not in the law; "It is not up to me to decide if it is green enough".

I think that in the years to come we will broaden the areas for the independent regulator, so he will also be responsible for securing some kind of greening in the sector. In choosing a green solution over a more black solution, he can say, "The green one is a little bit more expensive, but I can give it some points or whatever to choose this for the consumer". But we are not there at the moment.

Lord Burns: Has there been discussion about whether the independent regulator should have the additional responsibility of taking into account the green agenda?

Kristoffer Böttzauw: Yes, in Parliament. As I have seen the discussions going on, the Danish Parliament welcomes some new ideas about giving the independent regulator more responsibilities. At the same time, it does not want the independent regulator to be a policymaker. That is a very important distinction here. The independent regulator only regulates. When it comes to making new policies, even at a small level, the Danish Parliament says no, it wants to do it itself, or give it to the Minister, who they can control.

Lord Burns: Alejandro, do you have any observations on international practice on this subject? Is it the norm that there are independent regulators, or are many of these decisions are taken by ministries?

Alejandro Hernández: It is the norm to have regulators when you have an electricity system in which you expect to have private investment, one that is not completely owned by the state, and you have no natural monopolies, more like the grids—either the transmission or the distribution grid. It is the norm for there to be regulators that protect consumers and somehow also investments, in the sense that in relation to natural monopolies they get a fair return on their investment.

The energy transition will not change that. We will still need good regulators that are independent and can focus on their remit. Affordability will, for sure, be one of the big topics of a successful energy transition. We cannot pass a very expensive deal to the consumers. We expect this still to be the norm and for this to continue in the coming years.

There is still room for debate. Some solutions could be a bit more expensive than others; the green solution could be a bit more expensive than another one. The extent to which it would be is still open to clarification and is for regulators to take into consideration. There are many topics, and the expansion of the grids is a good example. The grid that you need when you have a large source of renewables in general is larger than the one you have for fossil fuels.

This is a good example in which the regulators can keep on working as they are doing. They have also already taken the decision that the most efficient solution for decarbonising the system is to have a large amount of wind in the system. They have to continue doing their job, and say "Okay, we know that this is the new fleet, this the new energy mix, and the cheapest grid that goes with that large share of renewables, is much larger, and is more expensive". So they can continue doing their work as long as someone else—in this case, the ministry—takes the decision to decarbonise the system.

Q128 **Baroness Donaghy:** My question is to Kristoffer. What lessons can be learnt from Denmark's use of district heating networks, and the Danish Energy Agency's role in regulating heat? The regulations are on a

principle of non-profit. Does that complicate or simplify things?

Kristoffer Böttzauw: That is a very good question. You have politicians, meaning that it complicates things, but I believe that it simplifies things. It is very important to have a regulator who is still pushing for an effective sector. That is one of the main tasks for the independent regulator.

The Danish Energy Agency is responsible most of all for the guidelines on energy planning in the district heating sector. That means that we tell the municipalities, which stands for the local planning, and the companies how they have to calculate if they want new solutions going from coal or gas to biomass or heating pumps. It requires the economic and the business case to be okay, and we are setting up the calculations and the guidelines on how to do that.

It gives a very clear push in a green way, because the politicians are setting the limits on how much it costs and how much better a more fossil fuel-based business case has to be if the district heating sector normally chooses the fossil-fuel based route. So we are setting the guidelines and making new regulations and political schemes, giving the dispensations from the law as well.

I will tell you just a little bit about the Danish district heating sector, because it covers about 60% of all Danish households. I do believe that district heating in the future will be some of the best points for connecting the energy sector—going from electricity power to excess heat to heating Danish households. The heating sector is also a very good sector for storage; you can store your electricity by heating up water and then you have a lot of energy storage for the future.

Q129 **The Chair:** Alejandro, the IEA published a report recently that had a number of different scenarios. It was somewhat of a surprise to read that the scenario based on current—ie pre-COP 26—rules and regulations saw no drop at all in global consumption of fossil fuels. I think part of the reason for that was the expected increase of two billion in the world's population, but obviously many countries will struggle to get to net zero. I do not know if you have had a chance to recalibrate your scenario in the light of some renewed calculations, but would you take us through that, because the report suggested that fossil fuels and the need for gas et cetera will continue at the current level throughout the period until 2050?

Alejandro Hernández: It is important to understand that the demand for gas, oil and fossil fuels in general will basically depend on the ambitions and the effective policies that are implemented in order to reduce the demand for them. In the IEA scenario setting, we have to look at them together. In the net zero scenario, for instance, one of the things that was very relevant was that if the right policies were implemented to reduce the demand for fossil fuels, there would be no need for new investment. To put it differently, if someone wanted to invest money, and Governments were taking the actions needed to reduce the demand for

fossil fuels, you might be betting on a bad investment in the sense that no new oil and gas fields would be needed.

As I mentioned, this is contingent on policies being there to reduce the demand for fossil fuels. It cannot be taken out of context. If Governments do not have enough policies for reducing the demand for fossil fuels, or they are not properly implemented, we can expect oil and gas to still needed to fulfil the energy needs because we have not done the work of reducing the demand for these. There is an alternative way; I think this is the IEA's point. Investment is needed in energy efficiency, large investments are needed in all types of low-carbon sources—in renewables, in nuclear. There are still many things that could be needed, such as efficiency in transport, hydrogen et cetera. It may cost, but that would avoid investing in new oil and gas fields. I think that is the right way to present the scenario.

The Chair: Thank you very much for that, and thank you both for joining us today and giving us an interesting perspective. It is very encouraging to hear the rapid progress that Denmark is making towards its targets. Let us hope everybody else can take heed of that. Thank you very much indeed.