



European Affairs Committee

Corrected oral evidence: The future UK-EU relationship

Tuesday 15 November 2022

4 pm

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Members present: The Earl of Kinnoull (The Chair); Baroness Couttie; Lord Faulkner of Worcester; Lord Foulkes of Cumnock; Lord Hannay of Chiswick; Lord Jay of Ewelme; Lord Lamont of Lerwick; Lord Liddle; Lord Purvis of Tweed; Baroness Scott of Needham Market; The Viscount Trenchard; Lord Tugendhat; Lord Wood of Anfield.

Evidence Session No. 6

Heard in Public

Questions 81 - 96

Witnesses

I: Dr Caroline Kuzemko, Co-Lead of Energy GRP, University of Warwick; Dr Simone Tagliapietra, Senior Fellow at Bruegel; Ed Birkett, Head of Energy and Climate, Onward.

Examination of witnesses

Dr Caroline Kuzemko, Dr Simone Tagliapietra and Ed Birkett.

Q81 The Chair: Welcome, everyone, to this hybrid House of Lords European Affairs Committee. We are engaged in our inquiry into the future of UK-EU relations, and in this afternoon's public evidence session we come to the bit that is about energy and climate.

I am very pleased that we have a strong witness panel all round. Ed Birkett is from the think tank Onward, Dr Caroline Kuzemko is from the University of Warwick, and Dr Simone Tagliapietra, who is joining us from Belgium, is from the think tank Bruegel. We are grateful to all of you for coming along. I have not explained much about who you are. We know who you are, and that is why we asked you to come, but those who are watching do not, so when you speak for the first time, can you give a bit

more background about yourselves in a couple of sentences so that people know?

As this is a public evidence session, a transcript will be taken, which we will send you. In due course, could you notify us of any corrections that need to be made, because it will be the basis on which we write our report and we will be quoting from it? We have quite a lot of questions and a lot of ground to cover, so I would be grateful if those asking questions and those answering them would do so crisply so that we can get through everything that is on the menu in the time allotted.

I will start with a general question, which is to ask each of you how you characterise the current state of the relationship between the UK and the EU in energy and climate change. What are the primary factors affecting that relationship? As a special extra thing, there is currently an impasse over the Ireland/Northern Ireland protocol, and I wonder whether any of that has leaked into the energy and climate change sectors.

Ed Birkett: I am head of energy and climate at Onward, a centre-right think tank. I previously wrote a report on the future of UK-EU energy cooperation in 2020 for the think tank Policy Exchange.

On the question about the overall state of the UK-EU relationship, I will focus on the energy elements. There have clearly been a lot of changes to the UK-EU energy relationship as a result of Brexit. The UK is no longer in the EU's internal energy market. Despite that, UK and EU energy markets continue to function effectively. We can see that in the fact that crossborder flows of energy are still responding to prices. For example, during the current crisis, the UK has been importing a lot of liquefied natural gas from places like the United States, the Middle East and further afield, and has then been transporting that to the EU in response to high prices in the EU caused by the loss of Russian gas supply, which normally comprises about 40% of the EU's gas. Similarly, problems with the French nuclear fleet means that electricity supply in France is lower than usual and now the UK is exporting electricity to France in response, reversing a long-term trend of the UK being a net importer of electricity from France.

I have three key questions on that energy relationship going forward, which your inquiry rightly identifies. How will that relationship function this winter if there are periods of energy shortages in the UK and the EU? Will the UK and the EU continue to co-operate on cross-border energy projects, particularly offshore wind farms and electricity interconnectors in the North Sea? Finally, will the UK and the EU re-establish efficient cross-border trading arrangements for electricity? Again, you identified this.

The additional question you raised was whether the impasse over the Northern Ireland protocol affects the energy and climate relationship. I think the answer is yes. You can see in the way the EU-UK trade and cooperation agreement was written that energy issues are clearly linked to other issues. Look at the fact that the energy chapter expires at the

same time as the fisheries chapter—a deliberate attempt by the EU to link those two issues.

More broadly, some of the things that we will be asking for around reestablishing efficient cross-border energy trading go against some of the EU's own red lines about being in the internal energy market in order to have its benefits. If the EU is going to cross the red lines that it has set out publicly, there needs to be trust on both sides. Issues around the Northern Ireland protocol absolutely affect that. We are seeing the potential for a more pragmatic relationship developing, which I hope will be positive for the energy and climate relationship too.

The Chair: That was very helpful. We will unpack a number of those issues later in the questions, so thank you very much for resisting the temptation to go there early.

Dr Simone Tagliapietra: Thank you. I am a senior fellow at Bruegel, the European think tank that is based in Brussels and specialises in economics, a think tank of which the UK Government are also a member. I am also an adjunct professor at the Johns Hopkins University SAIS in Bologna, Italy.

When it comes to UK-EU energy and climate relations, we have a number of short-term and longer-term issues to discuss. In the current energy crisis, the cross-border flows of gas and electricity between the UK and the EU have proved to be extremely important, as has been said. Gas flows from the UK have been very important to Belgium and the Netherlands, and electricity exports from the UK to France have also been very important.

It is extremely important for both sides to keep this cross-border trade open, even in the eventuality of energy security shocks during the winter, because although the UK is currently the one providing a lifeline to northern and western European markets, that situation could swiftly change and these countries could provide support to the UK. It is also important to consider that the cost of the UK Government price cap is directly proportional to the wholesale market prices, which are influenced by demand and subsidies in the EU: namely, in north-western European countries.

I think scope for co-operation exists on energy demand reduction. There are a number of lessons learned in the European Union on how to sensibly inform citizens about low-impact tools for reducing demand and therefore energy bills.

I think consideration should be given to what is next for gas and LNG markets in particular. As you know, the European Union is developing a joint-purchasing mechanism to have stronger bargaining power in LNG markets next year, when it will have to rely heavily on LNG—more than it did this year—basically because there will be no Russian gas. This year, we are still using some of that for refilling storage facilities. There might be an opportunity for co-operation between the UK and the EU in that regard as well.

Finally, on the longer-term issues, a number of issues in the post-Brexit institutional arrangements still need to be clarified. One is the inclusion of, or co-operation with, the European emissions trading system. The other is clarifying what effect the EU CBAM will have on the UK. The two things are strictly related. The UK has developed an ETS that resembles the European Union one, so a potential CBAM in the UK in the future would most likely resemble the European Union one. Therefore, there might be scope for cooperation in this regard.

Of course, it will also be important to understand if and how North Sea energy co-operation can be deployed and strengthened, because that is one of the most important horizons for the development of renewables—namely, offshore wind—in the European continent.

I will stop there for now, but I am happy to discuss these points in more detail.

The Chair: We will come very specifically to emissions trading and the CBAM later in the question set. Perhaps I can come to Dr Caroline Kuzemko now.

Dr Caroline Kuzemko: Thank you very much for having me here. I am a reader at the University of Warwick. I have been conducting research on the UK-EU energy and climate relationship for about three years now, but I am interested in that within the broader context of the politics of getting to net zero and the politics of sustainable energy transitions. That is the angle that I will be coming from when I speak about these things.

Overall, we are possibly at an inflection point in the relationships between the UK and the EU. It is a brief chink of a moment in time that is offering some hope for improved energy and climate agreement, and that is a result of Russia's aggression towards Ukraine and the energy policy changes that have taken place since then, which I guess we will come back to.

The point here is that, prior to Brexit, energy and climate interests and relations were well aligned and the relationship was working, so energy and climate were never necessarily a reason for Brexit. The UK is physically part of Europe. It is interconnected, in terms of electricity and gas, across to Ireland, up to Norway and over to the rest of Europe. There is no escaping that. There had been nearly frictionless trade in gas and electricity between the UK and the rest of the EU. Of course, the UK had been influential over EU policy decisions on energy and climate change.

That is where we have come from. Since Brexit, we have the trade and cooperation agreement. There is an article in that on energy, Title VIII. Aside from that article, the climate commitment is absolutely clear from both sides, which is a wonderful thing to see. In energy, however, some things have been less positive than they were. Brexit has affected collaboration and funding around sustainable energy innovations. It has slowed down the rate of additions of new interconnectors on the

electricity front between the UK and the EU. It has led to not bad but less optimal gas and electricity trading rules.

Obviously, Title VIII of the trade and co-operation agreement sets the basis for improved co-operation. That was the plan. Coming back to the wider relationship and the Northern Ireland Protocol Bill, our research and the many interviews we undertook suggest that that really stood in the way of these usually very well-aligned energy and climate relations.

The Chair: That is very helpful indeed, and thank you for the crispness of your answer.

Q82 Viscount Trenchard: I would like to go a bit deeper into this subject. As we approach the winter months, the energy security challenges in Europe are becoming more serious, and they are even more serious for some countries, such as Germany perhaps, than they are for others.

Against that background, it may be surprising that the TCA Specialised Committee on Energy has had only two meetings this year. I want to ask our panel how effective co-operation has been between the UK and the EU in this area. Which areas of co-operation have worked well, and which have worked less well?

Dr Caroline Kuzemko: I will pick up from where I just left off, with Title VIII and the various conditions worked into the trade and co-operation agreement about improved co-operation.

The Specialised Committee on Energy has been established and has met three times since it started up—twice this year and once last year. Behind that relationship, there are more technical-level relationships going on; Ofgem and National Grid are still talking to their peers in the EU. They are very keen to move the relationship forward. Obviously, one of the main roles of the Specialised Committee on Energy is to implement the relevant titles in the TCA and conclude supplementary agreements on trade rules for electricity. It has not been able to do that because of the wider political relationship. So the technical alignment is still there, but it has been somewhat held hostage, for want of a better word, by the wider relationship. I apologise; I should have chosen a better word.

In terms of effectiveness in gas and electricity trade—this has already been picked up on by Simone and Ed—the war in Ukraine has changed the atmosphere, because it is now so clear how connected the UK and the EU are on gas and electricity trade. The UK and the EU are obviously aligned in that they have agreed to phase out imports of Russian oil and gas, and other fossil fuels. That has meant an ensuing requirement to accelerate the alternatives to Russian fossil fuels, which has meant demand reduction across the EU. It has meant a massive upscaling of investment in clean energy, or plans to do so.

It is much harder for the EU to achieve this, because the UK was not a huge importer of Russian oil or gas. The UK managed to step forward as a gas bridge, basically, with LNG coming into Wales and pipeline gas coming in from Norway, and both then going across to the EU. We have established this really strong export market of gas into the EU and

became a net exporter of electricity over the summer as well. This has just brought to light and made more obvious the importance of the relationship.

Viscount Trenchard: Thank you very much. Dr Tagliapietra, what are your thoughts on this?

Dr Simone Tagliapietra: I very much agree with what has been said so far. I am convinced that the Russian aggression in Ukraine and its energy implications actually bring the European Union and the United Kingdom closer on energy co-operation. From a Brussels perspective, I certainly see a strong willingness at the technical level to increase the exchange of energy, to facilitate rules and to increase the gas and electricity interconnection.

This is true today because of our energy security concerns related to the war, but it is true tomorrow because of the energy transition. Let us remember that, in the green transition, interconnectivity between countries will be a crucial feature to end the variability of renewable energy sources and to make the system more efficient. The more that countries are interconnected in electricity, the easier it will be to roll out renewable energy efficiently. So what is true today because of the war will be true tomorrow because of the green transition, on which we share trajectories and objectives. There is potential to further strengthen both gas and electricity co-operation here.

Viscount Trenchard: Mr Birkett, what are your thoughts, especially on which areas could go better?

Ed Birkett: There is this risk around energy security co-operation this winter, because we are no longer in the EU internal energy market and are no longer subject to the EU law that has a solidarity principle embedded in it, which says that member states will always help out their neighbours. The risk then becomes: will an EU member state cut off energy supplies to the UK? In reality, that risk is relatively remote, because the Republic of Ireland, an EU member state, is 100% reliant on the UK for imports of both gas and electricity. So in reality that risk is low.

As previous witnesses have said, co-operation remains strong at a technical level. This is true bilaterally between the TSOs, and I believe that the UK is now also co-operating at a European level in an organisation called the ENTSO-E.

There are two caveats to that, though. One is to what level Ministers, all the way up to the Prime Minister, are engaged in this with their counterparts. Although the engagement is there at a technical level, there is the risk of a potential misunderstanding at the political level about steps that are taken during any energy shortage.

For example, the French cutting off the interconnectors to the UK in an extreme supply shortage might be allowed under the protocols that have been worked out on both sides, but if it is misinterpreted politically, it

could lead to rash action that then leads to cross-border trade breaking down. That is what we need to avoid. It was really positive that Liz Truss, when she was Prime Minister, explicitly talked at the meeting of the European Political Community about the importance of keeping energy flowing. That is something I would like to see the new BEIS team, all the way up to the Prime Minister, engaging on with their European counterparts.

The second political risk is the lack of a UK demand reduction strategy. In the EU, French Ministers are going on TV and telling people to wear poloneck jumpers so that they can turn down their heating. This is something that politicians do not really want to do, but they are doing it because they believe it is necessary to save energy. If they look at the UK and we are not taking the same steps, it becomes harder politically for EU politicians to argue that they should continue to export energy to us when their citizens are facing shortages, if we are not sharing that burden.

Q83 Lord Wood of Anfield: Ed has answered to some extent the question that I was going to ask about the shape of the impact that the energy security crisis might have on the UK, but I want to drill down into a little more detail. Could the three of you say something about the specific risks for the UK in the next few months, or perhaps the next couple of years?

Could you also give a little more detail about what you think the likely course of events might be if there is a critical supply shortage? How would it impact on the UK? What mechanisms would need to kick into gear in order for the UK to avoid the sort of impact that that might have? I hope that makes sense.

Ed Birkett: The key this winter is that the risks for the security of supply are higher than they normally are, because the Russian gas supply is no longer available this winter. The central case laid out by National Grid on the electricity and the gas side is that the risk of interruptions is low, but there is clearly a heightened risk, and there are credible scenarios where there might be energy shortages in the UK and/or the EU.

What I really worry about are risks from technical outages. If certain pieces of infrastructure are not available, the supply margin will not be there to the same extent this winter. So outages on an LNG export terminal in the US or on an LNG import terminal in the UK or the EU, more outages from the French nuclear fleet or any gas production outages in the UK or Norway would have a much more severe impact this winter than in previous winters.

The second factor is political risk, which I talked about in a previous response. Cold weather also has a huge impact on gas demand in particular. We also need to be aware of nefarious state activity by hostile actors—I am not particularly well disposed to talk about this—because a small amount of disruption could cause bigger impacts this year.

In the medium term, the energy security risks will go back down, because EU member states are building lots of import terminals for liquefied

natural gas, which will improve their supply situation, and because the increasing deployment of renewables will reduce Europe's and the UK's reliance on imported natural gas.

There are well-laid out procedures for what happens during critical shortages. The key is that the supply to households is prioritised at all times. You start by disconnecting large gas and electricity users from their respective grids, which allows you to maintain the supply to households. If you get to an extreme situation, you then start cutting off electricity to households through a process known as rota disconnections, where you have three-hour rolling blackouts, effectively. But you always protect the supply to critical infrastructure, such as hospitals.

That is extremely unlikely, but the processes are well laid out. I hope, and you can see from some reporting, that those procedures have been tested ahead of this winter.

Dr Simone Tagliapietra: I will make a point about the European Union's energy security outlook for this winter. Notwithstanding the significant difficulties and the high cost of finding alternatives to Russian gas over the last months, the European Union has managed to refill its gas storage, which accounts for around 20% of the yearly consumption of gas in EU, well ahead of schedule. Gas storage facilities are now 95% full, more or less.

The European Union has managed and is managing to reduce gas demand considerably. On average, in the year to date, gas demand in the European Union has decreased by 10%. The data for October shows that gas demand is being reduced in countries certainly by more than 15% to 20%. So a huge effort is going on to decrease the consumption of gas, which is very important, because it eases the pressure on the market. As you might have seen, gas prices in the European Union have been falling significantly from their peak in August. In August, the gas price in Europe was 18 times higher than it used to be. Now, those prices are only—let us say “only”—three times higher than they were before the energy shock. So we are now in a much better position.

Of course, the mild weather of the last weeks has played in our favour, because it postponed the start of the heating season. But we need to be cautious, because we remain in a very tight market and technical problems might arise at any time that have significant implications on prices. To give you an example, yesterday the key gas price benchmark in Europe, the Dutch TTF, spiked 15% because of the news of a technical outage in Norway.

So things can happen in the infrastructure. They have always happened, but we were never in such tight market conditions; that is the difference. That is the main risk I see for this winter. Otherwise, I think the European Union will go through the winter in good shape.

The key challenge will be next year, 2023, which might be as difficult as 2022 for the simple reason that Europe will have to import a lot of LNG. We are getting the infrastructure to do that. Today, Germany is

inaugurating its first floating storage and regasification unit. The other four will come online over the next months. All in all, next year, the European Union will increase its capacity to receive liquefied natural gas by 50 billion cubic metres—more or less—which is one-third of the usual Russian gas supply. This is a sizable amount of additional receiving LNG capacity.

The key challenge for the European Union, but also for the UK, will be how to navigate this very tight LNG market. This year, we have all been very lucky that China, with its zero-Covid policy, kept its gas demand lower than usual—40 billion cubic metres less LNG utilisation this year than the previous year in China. If China comes back to the global energy market next year, the market will be even tighter and it will be even more challenging for the EU and for other consuming countries to secure supplies. We could find ways to co-operate there through the joint purchasing scheme. At the G7, the German Chancellor proposed a gas club; the UK and the EU already want to promote the climate club on a very different topic, which we might discuss later.

The Chair: Thank you. May I ask you a factual question for when the session is over? You quoted a number of figures, and I have an iPad in front of me full of graphs of gas prices and things from the last few years. We would be very grateful if you could send us the particular figures you referred to, because we may want to refer to them in our report.

Q84 Lord Tugendhat: May I interpose a brief question of fact? One of the problems afflicting Europe at the moment is that so many of the French nuclear power stations are down. First, do we have any information on the chances of getting some of them back on stream in the near future? Secondly, as so many of them are down at the moment, is there any possibility that more will go down in the next few months? They are all quite old. So, first, are any of them coming back on stream and, secondly, is there a danger that more might go off?

Dr Simone Tagliapietra: Europe is indeed in a perfect storm when it comes to energy. There has, of course, been the Russian shock on gas, but also the nuclear problems in France. By the way, the extremely dry summer also compromised hydropower production.

We saw some optimistic declarations by the French Prime Minister, followed up by statements from EDF, about the French nuclear power stations slowly starting to re-enter operation in the first half of next year. The expectation is that we have now reached the bottom, so there is no discussion of the risk of other nuclear power plants in France being put under extraordinary maintenance right now. Actually, there is an expectation of them starting to come back online.

The question is how fast. A reasonable timescale is that, over the first half of the year, we will see one reactor after another slowly coming back online. That is the expectation, so the situation in France should slowly normalise in the first part of next year.

Q85 Lord Liddle: Is the assumption that Europe would never again want to put itself in a position of dependence on Russian gas? Even if there was some kind of peace in Ukraine, the political leadership in places like Germany have decided that they just do not want to put themselves in that position again.

Dr Caroline Kuzemko: I am probably not as close to this as Simone, but my understanding is that the intention is to get off Russian imports of gas, full stop, whether or not a solution is found in the Ukraine. That dates back to Crimea and 2014 and to the Russia-Ukraine gas transit disputes of 2006 and 2009. There have been a couple of decades of a tricky relationship now, so my understanding is that it is about getting off Russian gas, full stop.

Lord Liddle: Does Simone agree?

Dr Simone Tagliapietra: This is an important question that we need to treat very carefully. It is true that European countries and the European Union have taken a very strong position here and that the EU simply wants to get rid of its dependency on Russian fossil fuels. We will have a European embargo on oil, in which 90% of oil will not be imported from Russia any more. We now have Russia's decision to cut 80% of its supplies to Europe, which we have had to manage during the year.

The European Union is now putting a number of efforts in place to build alternative infrastructures—to get the floating storage regasification units, to sign new deals with LNG suppliers and so on. All these efforts will make for a decoupling between the European Union and Russia on energy structure, but I cannot exclude the possibility that some additional imports of gas from Russia into Europe will resume in the future. This particularly concerns not only eastern European countries, which keep doing some gas trade with Russia—Hungary recently signed a new contract with Gazprom, to be clear—but other countries like Italy, which still import some Russian volumes and might slightly increase them at a certain point in the future. The European Union will have to deal with this issue, possibly in the context of the sanctions regime.

Q86 Lord Foulkes of Cumnock: In your very helpful replies, you have actually dealt with the first part of my question about maintaining energy supplies and the arrangements and rules for that, so I will deal with the second part, which Ed Birkett dodged a wee bit, understandably. How do you think the UK and the EU can co-operate to prevent and deal with sabotage?

Dr Simone Tagliapietra: After the sabotage of Nord Stream 1 and Nord Stream 2, different countries, from Norway to Italy, France, Germany and many others, have increased the security levels of their energy infrastructure, which means that the Italian navy is now patrolling the area of the Mediterranean where the gas pipelines cross the sea and the Norwegian navy is patrolling the North Sea to make sure that nothing happens to that infrastructure. These security measures are taken at the national level even within Europe and are not necessarily co-ordinated, because you really need to patrol the territory.

That is one side of the coin. The other side is, of course, intelligence operations, which are extremely important to prevent such actions being planned. That goes beyond my area of expertise, but I can imagine some form of co-operation in that regard.

Lord Foulkes of Cumnock: Intelligence is one area where the United Kingdom can be particularly helpful.

Ed Birkett: I think that is fair. The key is just to make sure that work is going on. As we know, we do not all see what the security services and the military are doing. The key is just to make sure that that work is happening.

Dr Caroline Kuzemko: I think we will touch on this when we talk about the North Sea, but there will be an awful lot more long-distance interconnections of electricity and gas, and connecting this region of Europe together. So making sure that there is co-ordination on the security of that will be increasingly important as time goes by.

Lord Foulkes of Cumnock: Thank you. That is very useful.

Q87 **Lord Jay of Ewelme:** I want to follow up a question that Viscount Trenchard asked earlier about the Specialised Committee on Energy. I think it was Caroline Kuzemko who said that it had met three times, including twice this year, but there are various other bodies underneath it or apart from it. Given the importance of energy, do you think that meeting twice a year is enough, or is the necessary co-operation in fact covered by other organisations that are meeting separately from the TCA? That is a rather boring institutional question, but I welcome your views.

Dr Caroline Kuzemko: I will come back to what I was hinting at earlier. We conducted about 100 interviews with people who are involved in these kinds of talks between the UK and the EU on energy and climate change, who are often from regulatory organisations like Ofgem, National Grid or BEIS. Those conversations are happening, and the TCA clearly set out what the next step should be, which is supplementary agreement on electricity trading rules, but it has sat beneath the wider political relationship.

Given the EU's view on not cherry picking—clearly, this is an area where the UK might like to engage more deeply at a time when the EU is taking the UK to court over the Northern Ireland Protocol Bill—the question of trust has held back the next step on all those technical conversations that have been taking place. I am sure the Specialised Committee on Energy could meet more, but if it had more that it could do, I am sure it would.

Lord Jay of Ewelme: I am trying to get at whether things that ought to be done are not being done because the committee is not meeting, whether that is related to the Northern Ireland protocol or not. Are we all suffering because there are not enough people meeting to discuss the important issues?

Dr Caroline Kuzemko: It meets to discuss them on a technical level, particularly the next stage of trading rules between the UK and the EU on gas and electricity. That specifically is being held back because the EU does not want to sign a new agreement when it does not feel that it can trust the UK, given the Northern Ireland Protocol Bill. The conversations have been had and many are ready to move. I am speaking about people we have spoken to at National Grid and Ofgem. The technical level of agreement is there, and the rules on which you trade gas and electricity are quite technical. They are currently suboptimal and need to become much more efficient.

Ed Birkett: The thing we would be most worried about this winter is if those technical day-to-day discussions were not happening between the system operators. In the UK, that is National Grid ESO and National Grid Gas Transmission, and there are equivalents in all the EU member states. I am assured that those conversations are happening. That is the most important thing. Those are technical discussions that should be separate from any political constraints.

I go back to my earlier concern, though, which is that we need political leaders on all sides to understand what will happen in the event of energy shortages, to make sure that they understand the procedures and the steps that their system operators, the engineers, will be taking. That is the area where I am slightly more concerned. However, that is not necessarily a matter for the TCA or the Specialised Committee on Energy. A lot of that work can be done bilaterally between Energy Ministers. I hope that is something that our Secretary of State, Grant Shapps, will be doing, as well as some of the junior Ministers in BEIS.

Lord Jay of Ewelme: Simone, do you have anything to add to that from the European side?

Dr Simone Tagliapietra: I very much agree that it is important to have the technical people talking to each other and possibly Energy Ministers co-ordinating, particularly during an eventual period of security of supply problems. It is also important to avoid political misunderstandings and a scenario in which a technical problem in an interconnector might become a political issue. We recently had this problem between France and Italy, when one day it looked like France basically wanted to cut electricity exports to Italy. That was not taken well at the political level in Italy. Avoiding that kind of misunderstanding is extremely important, particularly during the winter. For that, the ministerial discussions plus the technical people co-ordinating is enough.

Q88 Baroness Scott of Needham Market: Caroline, you have already mentioned North Sea co-operation, so I would like to return to that and start with you, as you raised it. How significant do you think it is that the UK is now re-engaging with energy co-operation in the North Sea? Where do you see the main benefits and the main potential pitfalls down the road?

Dr Caroline Kuzemko: North Sea energy co-operation is another really strong motivation for both sides to improve the relationship. The

memorandum of understanding has been signed for the UK to re-enter the North Seas Energy Cooperation group as a technical partner. As far as I understand it, it cannot have full membership unless it signs up to internal market rules, but it means that the UK regains a seat at the table in a really vital body. It is vital within the context of UK and EU targets for emissions reductions, which are incredibly ambitious. It is vital in relation to the EU's targets for renewables as a percentage of energy, which it is looking to increase from 40% by 2030 to 45%. That is for all energy.

The North Seas Energy Cooperation group is targeting 260 gigawatts of wind in the North Sea by 2050, which is on an eye-watering scale, almost. It is considerable. Ireland also plans 37 gigawatts in Irish seas by 2050, and the UK is powering ahead towards 50 gigawatts by 2030. The importance of this is on a grand scale, and for the UK to regain a seat at that table is incredibly important.

To come back to the trading rules, again, many of the people we interviewed who are involved in some of these discussions stressed the importance of improved trading and interconnection rules in order to make that work optimally. It is not as if the current trading rules are stopping there being trade—there is trade. It is about making it as efficient as possible and increasing the number of timescales across which electricity can be traded.

It is also about including interconnection with electricity trade, which is about efficiency, cost efficiency, affordability and increasing flexibility, as these North Sea wind farms need to be able to send the wind to exactly where it is needed. A lot of that will have to do with weather patterns as well as demand patterns.

So it is a really positive step. In a way, I see it as a bit of a concession on the EU's behalf to have allowed that, which is why I am feeling that there is a chink, a bit of an opening, for further movement here.

Dr Simone Tagliapietra: The North Sea is certainly one of the most promising areas in Europe in terms of renewable energy development. That has a lot to do with offshore wind but also with green hydrogen production. The whole idea of creating green islands in which we might produce green hydrogen that is then dispatched across the continent responds to one very simple fact: that, across Europe, we have a high population density, and there is an issue related to land availability in the rollout of renewables in that there is a limit to how many renewables we can roll out on land because of the trade-offs with agriculture, and so on. This is why offshore will be a very important part of renewable energy deployment moving forward. The North Sea is one of the areas where the wind is potentially the best, so it makes a lot of economic sense to develop these.

Here, we are talking about economies of scale. It is extremely important that there is co-operation because of this economies of scale element. Also, technological co-operation and development will be important in the

technology of green hydrogen that still needs to be developed at the commercially viable level.

Q89 Baroness Scott of Needham Market: You have talked about there not being a lot of space on the land and about the North Sea being an oasis. Actually, the North Sea is a pretty busy place as well, and it is possible to imagine potential conflicts between these various forms of energy generation and shipping, fishing and leisure activities, for example, and certainly ecology, as the Dogger Bank area is internationally protected. How do you reflect on that? How might it impact on co-operation? I want to put this question to Simone, since he made the original point about the sea being a natural place to move to, and perhaps to Ed after that.

Dr Simone Tagliapietra: This is not a silver bullet, of course; we cannot think that the North Sea will solve Europe's energy problems. But there is still great potential in remaining within the environmental limits that we clearly have—that is, remaining within the limits provided by environmental protection—and in considering all the different trade-offs that exist in offshore waters, as you correctly say. That is also due to the fact that wind speeds are so high; you can get more productivity in the way that you produce electricity there than in many other places around Europe.

So it is not a unique solution or a silver bullet in itself, but it is certainly a very promising area. That is why countries from Denmark to Belgium and Germany are teaming up to develop these islands, which might become important elements in our future energy systems.

Ed Birkett: I want to try to articulate why multilateral co-operation in a forum like the North Seas Energy Cooperation is so important in the world we are moving to, as opposed to bilateral co-operation, which is what we have relied on to date. In the old world, we had offshore wind farms connected to only one country, so no co-operation was required. We then had point-to-point interconnectors, which connected, for example, the UK and France, the UK and Ireland, and Norway and the Netherlands. That was really a bilateral question.

The world we are moving to now is that of multipurpose interconnectors, where way you might have an offshore wind farm that is connected to two or even three countries. We are going to move to a meshed offshore grid where you have all these different nodes in the North Sea adding to that efficiency of trading and adding resilience as the wind moves to different parts of Europe, as well as to offshore islands as previously mentioned. That is why that multilateral co-operation is so important.

It is worth saying that there is no policy reason why the UK should be excluded from the North Seas Energy Cooperation. It is really a political issue, and I am glad to see that that political issue is slowly abating.

The Chair: Caroline, you mentioned a number of figures again to do with the targets for wind production. It was interesting to hear the UK's proportion of those targets, and I wonder whether you could send those figures on to us in due course. I will remind you at the end.

Q90 **Lord Hannay of Chiswick:** Following on from the point you made, are you really saying that in energy security terms—this is a policy area concerning this country and the EU and its member states a great deal at the moment—the only sensible approach is to treat Norway and the UK, non-members of the EU, and members of the EU as a single unit?

Ed Birkett: It certainly makes sense to have free energy trade in as large a jurisdiction as we can. We try to do that globally with the oil market. Again, we are seeing it globally with the market for liquefied natural gas. We are seeing it regionally with the European gas market, and we see it regionally with electricity markets, which are not yet global due to the difficulties of transmitting electricity over long distances. It absolutely makes sense to do that. So you have the UK, Norway, Switzerland, the EU and the Balkan states.

I can see from the EU side why it wants to have this concept of an internal energy market, because it can then use that as a stick to encourage current and prospective members of the EU to reform their energy markets in such a way as to make them more efficient. The UK should always respect why the EU wants to have an internal energy market, but it does seem in some areas that the politics are really getting in the way of sensible policy cooperation. I would include in that the North Seas Energy Cooperation, which the UK was excluded from, and the electricity trading arrangements.

The Chair: That is a very good segue into the next question.

Q91 **Lord Lamont of Lerwick:** My question is about electricity and gas interconnection. I will put all my questions together. What consequence has the decoupling of our energy market from the EU energy market had for electricity and gas interconnection between the UK and the EU? What have been the main implications of the delay in concluding the supplementary agreement on the cross-border trading of electricity, as was envisaged in the TCA? What have been the main causes of this delay? How can the deadlock be broken? Lastly, do we need a lot more interconnectors?

Ed Birkett: Thank you for your questions. We definitely need more electricity interconnectors. Gas demand in Europe will fall substantially in the next few years, so the case for gas interconnectors will be a lot weaker. Electricity interconnection is where we should focus. All the studies that are done call for a lot more interconnection on the electricity side so that renewable energy resources can be shared across the continent. We will also potentially need hydrogen interconnectors, as that replaces natural gas in some use cases.

As for what the impact has been of Brexit and the TCA on electricity and gas interconnection, my understanding is that the gas trading rules are largely unaffected because they are not an EU scheme. A private company runs the gas trading exchanges, so it is less affected by Brexit and the new TCA.

On the electricity side, the electricity trading rules have become a big feature of the EU internal energy market, and the rules that govern

electricity trading in the EU are codified within EU law. The fact is that we have been kicked out of the most efficient form of trading arrangements. There are no tariffs, but the trading is less efficient, so that can lead to higher costs for consumers and effectively keep the energy flowing the wrong way compared with what it should be doing, based on prices. A report in the *Financial Times* said that Baringa, the market consultants, estimated that the lack of the most efficient form of market coupling cost UK consumers £250 million in 2021.

Lord Lamont of Lerwick: Your very first piece of evidence to the very first question was about how the decoupling had been consistent with continuing the flow of energy in both directions. It was the first thing that you said at the very beginning.

Ed Birkett: Yes. The fact is that we are no longer part of this implicit marking coupling arrangement—that is what it is called—where all the bids and offers for electricity across the EU, which included the UK, are gathered together, and then once a day they are put into an algorithm that spits out prices, volumes and interconnector flows. We are no longer part of that, which means that we have to rely on trading exchanges between individual bilateral parties. We have to book capacity on an interconnector rather than have it allocated implicitly by the algorithm which the EU manages for the day-ahead market, which is one of the main markets where electricity is traded. That does not mean that there are tariffs or anything like that, so the trading continues and, broadly, electricity continues to flow in the right directions in each hour, based on prices and on need, but because we lost that automated element of trading—that implicit market coupling—that process is less efficient and therefore costs are higher.

Dr Caroline Kuzemko: The difference between the current default electricity trading arrangements, otherwise known as explicit trading, and implicit really is about optimising electricity trade, which is important given that there will be an awful lot more electricity trade, especially as energy becomes increasingly electrified over time, as heat and transport also become more electrified. So the importance of electricity within overall energy relations will go up.

The idea of having an implicit arrangement whereby interconnection capacity can be traded with electricity units, as it were, is really just about optimising and allocating in the most efficient way. It is not that trade does not happen, because clearly it does; it is just about optimising it in a world with more electricity, where more balancing of electricity markets will be needed back and forth between countries within the EU as we become more reliant on renewables. It is about optimisation, really.

Lord Lamont of Lerwick: You have not mentioned the delays in the supplementary agreement. Perhaps I can put that to Dr Tagliapietra.

Dr Simone Tagliapietra: I also want to stress that the main consequence of Brexit is regarded as being a loss of efficiency in the exchange of gas and electricity. There is also a degree of deceleration of

plans to increase these interconnections, which is also an important point to be made.

Q92 Lord Tugendhat: This question was touched on right at the very beginning. To what extent are the UK and the EU aligned in their overall aims in climate change mitigation? How likely is it that UK and EU policies in this area will remain consistent or diverge? Finally, what would be the implications of the emergence of great divergence? As you indicated, this is an area where there is considerable convergence at the moment. I do not want to put words into your mouth, but I do not think it looks as though there will be very much divergence. What is your view?

Ed Birkett: There has not been much divergence yet between the UK and the EU on climate policy. What that was interesting in 2019 was that we saw a bit of a race to the top, where the UK and EU member states were trying to outcompete each other for who could first declare a net-zero target and who could be more ambitious on phasing out petrol and diesel cars. That sort of healthy competition is something we want to promote. There is also, of course, a risk of divergence in a race to the bottom rather than a race to the top, but that is something that the UK public and civil society have to hold the Government to account over in keeping ambition high on climate change.

On areas where we could diverge, the carbon border adjustment mechanism that the EU is considering is the first real big test. Our carbon pricing regimes have been functionally identical. We have an emissions trading scheme that is based on the EU Emissions Trading Scheme. However, as the EU introduces the carbon border adjustment mechanism, it will introduce a significant divergence on carbon pricing and in broader trade terms. That is something that the UK will have to manage.

My personal preference would have been for the UK to get out ahead on carbon border adjustments. We now need to play catch-up a bit. I believe that the Government have committed to consult. We should absolutely be doing that and looking to stick relatively closely to the EU's plans, or to offer improvements if we can see them.

Dr Caroline Kuzemko: I agree with the tone of your question. There is a good deal of alignment on climate change, and that is embedded in the TCA. The opening paragraphs of the trade and co-operation agreement are on maintaining commitments to ambitious climate change mitigation.

When I look at climate change mitigation policy I look at it in the broader sense of sustainable energy being affordable and reliable, as well as clean. On that side, partly as part of the REPowerEU strategy in response to Russia's invasion of Ukraine, there is a little more divergence now in that the EU's ambitions on energy efficiency and renewable energy are much more specific in what it wants to achieve. The EU is now concentrating far more on energy efficiency, energy poverty reduction and the notion of a just transition through its social climate and just transition funds. That relates to the politics of getting climate mitigation

done, because it has to be suitable and affordable for enough people for it to stay on political agendas.

That is where I see a bit of divergence, but I do not think it will necessarily make that much difference to emissions, which I guess people are mostly focused on.

Lord Tugendhat: Dr Tagliapietra, do you differ from colleagues here?

Dr Simone Tagliapietra: I very much agree with what has been said. I would make one point on CBAM, which typically raises a lot of political concerns, if not political tensions, not only between the EU and the UK but between the EU and all trading partners.

CBAM is designed in the European Union to be the mirror of the European emissions trading system. If a third country has its own emissions trading system that will be taken into consideration—so if the UK and the EU emissions trading systems are delivering a very similar carbon price—basically no CBAM will be applied to the goods being exported from the UK into the European Union, because that will be taken into due consideration.

The CBAM mechanism is designed in Europe as a way to take into consideration the carbon price in third countries. That will be deducted by the multiplication of price per quantity of carbon embedded in goods.

The Chair: We will come back to CBAM in detail later.

Q93 **Lord Liddle:** I suppose the follow-on question is: in this area, how much co-operation do we think there is at present? What can be done to try to strengthen that level of engagement? What would our witnesses recommend happens?

Ed Birkett: On a carbon border adjustment mechanism?

Lord Liddle: Yes.

Ed Birkett: At the simple level, a consultation has been promised by the UK Government. I cannot remember which department; it might have been the Treasury. That consultation should be published, and in it the Government should respond to the EU's proposals. They should also consult on ways in which the UK can respond to them.

In particular, on electricity trading, I am concerned that the EU proposals for a CBAM could apply in effect a carbon tariff to UK-produced electricity. That does not seem particularly justified to me. It would add a lot of complication to tracking where electricity is produced, which is not necessary because the UK and the EU have very similar emissions trading schemes. The UK has an additional carbon tax in its electricity sector, called carbon price support, so I would really push back against any attempts by the EU to impose a carbon border tariff on the UK's electricity production.

Lord Liddle: I would like to come back on that and ask the others. In the EU, Frans Timmermans' proposals have been floated and debated, and

there has been a lot of political engagement about them. It seems to me that there has been very little discussion of these things in the UK. I am not aware of what positions either the Government or the Opposition have taken on these questions. It just looks like a rather dangerous empty space to me. How would you react to that?

Ed Birkett: I completely agree, actually. Parliamentarians and the Government have been aware for a while now of the need to consider carbon border taxes and carbon border adjustments to address the risk of carbon leakage. In a way, the EU is forcing our hand, because its proposals are meant to come in in a few years' time.

I am not sure exactly how that engagement should be done. As I said, one specific thing we should do is get that consultation out there and respond to the EU's proposals. There should probably also be engagement at the No. 10 level between the Prime Minister and Ursula von der Leyen, the President of the European Commission. Those are the sort of steps we should take. Potentially, there should also be some bilateral co-operation between the UK, BEIS and No. 10 and the leading voices calling for a CBAM in the EU—France, Germany and so on.

Dr Caroline Kuzemko: I must admit that I do not really have an awful lot more to add on that. I agree that it is a wide open space, and not many people are even aware of it in the UK, I think. The only thing I am thinking about is the degree to which, if the UK went ahead with the CBAM, it might affect trading relationships with some of the larger emerging markets that the UK may seek to do deals with. Clearly the intention is to put a tariff on goods that are produced with a higher rate of emissions. That might have implications for those trading relationships, but that is just a hunch.

Dr Simone Tagliapietra: In the same way that the UK replicated the EU emissions trading system as it is, simply because it contributed to building that over a long period of time, there might be the possibility of the United Kingdom having the same CBAM measure as the European Union so that we are perfectly aligned in that regard.

I note that, during the recent presidency of the G7, the United Kingdom also pushed for the creation of an international climate club in the context of the G7. That is now a priority that has also been promoted by the German presidency of the G7, and although it is not disruptive and will not happen any time soon, it will continue to be in the works. Canada, for example, is another G7 member that has an interest in developing CBAM.

So there are players out there that are also developing this, and I would certainly encourage the UK to develop its own CBAM system, aligned with its own ETS, which would basically reflect entirely the EU system and avoid any sort of trade friction between the two.

Lord Hannay of Chiswick: If I have understood properly, there are three replies to that question. Now, before the EU finalises the details of its system and its implementation, it would be highly desirable for the UK and the EU at least to discuss the implications of these matters for their

mutual relationship, rather than waiting until the EU has set the whole thing in concrete and we have to try to deal with it from the outside when it is an up-and-running system. Have I understood correctly that that is the view of all three of you?

Dr Caroline Kuzemko: That is my view, yes.

Ed Birkett: Yes.

Lord Hannay of Chiswick: Secondly, have I understood that it is not being done?

Ed Birkett: It has not been done yet.

Lord Hannay of Chiswick: It is not being done.

Ed Birkett: Not yet.

The Chair: That is a helpful clarification.

Q94 **Lord Faulkner of Worcester:** I want to ask about the British and the EU emissions trading schemes. Obviously we pulled out of the EU scheme after Brexit, but would it be desirable to try to link the British and EU schemes again? If so, what would the advantages and disadvantages of that be?

Dr Caroline Kuzemko: The consensus among scholars in what I read on this area is that, given the opportunity, the UK should link back to the EU ETS. Of course, the UK ETS was up and running faster than expected and has a higher price for carbon, so it is sending a strong decarbonisation signal and is doing its job to that extent.

However, it is of course far less liquid than the EU ETS, and there is a higher UK ETS price, so there are knock-on costs for the industries involved. Obviously, at a time of higher UK energy prices anyway, that is a bit difficult at the moment. Of course, Northern Ireland remains part of the EU ETS, and having two carbon prices might become difficult if and when the EU implements the CBAM. Those are some clear reasons why you might want to link.

Coming back to an earlier point, if it is going to happen, it should happen reasonably quickly, because there are some big changes on the horizon for both the EU ETS and the UK ETS.

Lord Faulkner of Worcester: Was it a mistake to come out of the agreement?

Dr Caroline Kuzemko: I am not sure that it was an option, really.

Lord Faulkner of Worcester: If it was not an option then, how could it be an option now for us to go back in again?

Dr Caroline Kuzemko: It depends on the little chink that is opening up in the negotiations that are currently ongoing. Just as there are technical conversations going on around the electricity trading rules, there are also

conversations going on around ETS and the link-up—less so, but they are still going on.

Lord Faulkner of Worcester: Is that your view, Ed?

Ed Birkett: The downsides of trying to seek a linkage between the UK ETS and the EU ETS are around sovereignty and the fact that the UK would have to align itself with the EU rules on emissions trading, and presumably it would then be subject to rulings by the European Court of Justice in that area. That is clearly something that a lot of Members of Parliament are concerned about.

So, really, it comes down to a political judgment for the Government: what is the EU asking for in return for the UK and the EU linking their ETSs, and to what extent will that antagonise presumably Members on the Government Benches in particular and therefore put broader policy objectives with the EU at risk? The Government face quite a raw political judgment.

If the schemes are not linked, there are things that the UK Government can do to mitigate some of the downsides of that—the downsides being that you are likely to have more volatile carbon prices, which increases uncertainty for investors. You can get around that by having a long-term rising floor price in the UK ETS, which would give investors more certainty, as well as a price cap in the UK ETS, just to provide guardrails and get over the risks of that increased volatility from having a stand-alone and smaller emissions trading scheme.

Lord Faulkner of Worcester: Simone, could you give a view from Brussels?

Dr Simone Tagliapietra: The European Union is unlikely to be open to anything that weakens the EU ETS, but, if it is properly managed, a linkage of the two systems might be technically achievable, and politically acceptable and welcome due to the fact that climate change is an area in which a lot of countries around the world fortunately have a common understanding. So it would be natural to develop co-operation in this space between the UK and the EU. This is even more true if, at the G7 level, there are developments to increase the climate action of the G7 partners.

Lord Faulkner of Worcester: Are you able to help us by telling us what the current volume of trading is in the respective ETSs? How do you think this will change?

Dr Simone Tagliapietra: The European ETS is, of course, a much larger system in the emissions covered, because it covers 27 countries. We also need to be aware of the fact that negotiations are ongoing in Europe between the European Parliament, the European Council and the European Commission to create a second ETS. The current ETS covers electricity generation, large industrial installations and domestic aviation. Work is now ongoing to create a second ETS to cover road transport and residential heating. That would be a stand-alone system, which is now

being postponed because of the current energy crisis, of course. I do not know whether that answers your question, but in terms of volume the European Union system is certainly much larger than the UK one.

Lord Faulkner of Worcester: Could either of the witnesses in the room help us with current levels?

Ed Birkett: I do not have specific figures, unfortunately.

Dr Caroline Kuzemko: I was reading up on this on the way here. The exact numbers have slipped my mind, but I think that on a scale the EU ETS market is about 11 times greater.

The Chair: Perhaps I could ask you to point us in the direction of those figures. We would be very interested. I have it on my list here.

Q95 Lord Hannay of Chiswick: We have already touched a bit on CBAMs. The fascination of that topic seems to have contaminated some of the other questions. Could we now look at the implications for the UK and the EU on the best working assumption, which is that the EU will agree a system of CBAMs and apply it, not necessarily on the dates that the Commission has proposed but at any rate some time in the not too distant future?

In those circumstances, what are the implications for the UK? For example, even if we were to reach a position, because of the emission trading links and so on, in which the European Union did not wish to apply CBAMs to UK-EU trade, there will undoubtedly—perhaps you could confirm this—be a pretty hefty amount of bureaucracy involved in the EU applying a CBAM scheme to its imports, including from the UK, even if it did not charge any charges from them. That would simply increase the friction on UK-EU trade, which is already fairly considerable. That is the bureaucracy point.

Then perhaps you could look at the foreign trade point. Let us take for an example that the European Union decides to apply quite a large CBAM on cement or steel from China. What would the implications be if the UK did not do the same thing, both for its trade with the EU and for its own economic position? Perhaps you could have a shot at that.

We have already talked a good deal about the desirability of the UK getting into a dialogue—not necessarily an agreement—with the EU while the EU system is still in formation. I do not think we need to go over that again, because you all gave extremely clear answers on it, although heaven knows how it has to be done, given that there is a distinct lack of enthusiasm on the UK side for opening up dialogues of that sort with the European Union. Perhaps your answers so far are sufficient. It would be helpful if you could take the other questions that I have asked. Perhaps we can start with the view from Brussels.

Dr Simone Tagliapietra: There is no short answer to those questions, unfortunately. The design of CBAM is extremely complex. The opportunity to exempt the United Kingdom from CBAM—not really because of the tariff itself, because if the two carbon prices are compatible there will be no tariff, but because of the administrative burden, which is a real issue;

I completely see your point—would have to be a matter for negotiation in the framework of the wider trade agreement.

For now, there is nothing of that sort in the CBAM design for any country. Therefore, we need to reopen, from zero, an important part of the design, which is already taking a long time to be made. I therefore doubt whether that can be done in the context of the current legislative cycle, or whether that would be up to the new institutional cycle in the European Parliament and the European Commission.

Ed Birkett: This will undoubtedly increase bureaucracy and trade friction, but the goal is quite big: to stop European and UK industry being offshored to different parts of the world. To reduce that bureaucracy, we should exempt electricity from the EU CBAM, which is one of the five sectors in which the EU plans to introduce it, because, as we discussed, the UK has a carbon price in the electricity sector and is rapidly decarbonising its electricity sector. It would make sense to try to carve that out to reduce the bureaucratic burden.

The biggest burden will come on some of the manufactured goods, so if the UK imports steel from China, puts it in a car and sends that car to the EU, that is where you will have the biggest burden. Because of Brexit we already have to track some of that in the rules of origin to allow the UK to qualify for tariff-free exports to the EU, so some of that bureaucracy is already being done. There would therefore also be implications for the UK's trade policy, because if the UK imported lots of steel from, say, Indonesia— I do not think we do—and then exported it to the EU as cars, that could have significant implications that would need to be taken into account in any trade deal between the UK and somewhere like Indonesia, which probably has higher emissions.

The first-order implication if the UK did not apply a CBAM would be that UK exports would be subject to the carbon border tariff. The second-order impact is that the UK could in essence become a dumping ground for highcarbon goods that would otherwise go to the EU, which would have a really negative effect on some of the UK's industries. You could see that in steel, for example: if the EU becomes a no-go zone for cheap but environmentally damaging steel, that could all get dumped on the UK, massively collapse the UK domestic steel price and be very bad for domestic steel producers. From an economic sovereignty point of view, in protecting our domestic economy, this is something that we absolutely have to engage with.

Lord Hannay of Chiswick: I think what you are saying is that sovereignty does not apply in this sector.

Ed Birkett: Well, there are implications of the sovereign decisions that the EU is making on CBAM. They are big, and they are first-order in terms of tariffs, and second-order in terms of diverted trade.

Forgive my ignorance, but what is the EU contemplating doing vis-à-vis Norway and Switzerland on CBAMs?

Ed Birkett: Simone will have this answer.

Dr Simone Tagliapietra: There is no specific provision there, so they will be subject to that as all other countries are.

Ed Birkett: Yes, on some of the manufactured goods—where they import, say, steel from China and then sell something to the EU that is manufactured. But there are provisions in that they are in an ETS that is linked to the EU, which means that certain elements will be carved out. That is my understanding.

Lord Hannay of Chiswick: Is that right? Is that view of what is happening in Brussels correct?

Dr Simone Tagliapietra: That is indeed correct.

Lord Hannay of Chiswick: Do you have any additional thoughts on these questions?

Dr Caroline Kuzemko: I do not. I would agree on the first and secondorder implications if the EU goes ahead and the UK does not have a CBAM. Then, of course, as someone touched on earlier—I think it may have been Simone—there is also the question of climate clubs. That might be one route that the UK could take to lessen some of that impact.

There is a global agreement on sustainable steel and aluminium between the US and the EU, and they have said that they are open to like-minded economies, so the door seems to be open for membership of climate clubs. I do not know the technical answers on the degree to which that would lessen the effects, but that is held as one route to lessen them.

The Chair: Thank you. That is the end of 90 minutes of fascinating material for us, and certainly for me. I am afraid that you have promised a few things. Dr Kuzemko, you promised some information on North Sea wind energy targets and on ETS volumes for both the UK and the EU. Dr Tagliapietra, you promised some information on gas prices as well. I would be very grateful if you could forward links to that data to our staff; it would be hugely helpful.

It may be that, on reflection, because this has been a very interesting session, you have other thoughts that you think you ought to draw our attention as we grapple with this important and difficult area. Perhaps I could invite you also to submit anything in writing that you feel would be helpful to us, having seen the tone of the line of inquiry that we are following up. We would certainly be very interested in what you have to say, because you have been the most excellent witnesses. I know that I speak for all my colleagues in thanking you very much for giving up 90 minutes of your time.