



Industry and Regulators Committee

Corrected oral evidence: Ofgem and net zero

Tuesday 30 November 2021

11.30 am

Watch the meeting

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

Evidence Session No. 19

Heard in Public

Questions 210 - 226

Witnesses

I: Rt Hon Greg Hands MP, Minister for Energy, Clean Growth and Climate Change, Department for Business, Energy and Industrial Strategy; Joanna Whittington, Director-General, Energy and Security, Department for Business, Energy and Industrial Strategy.

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Examination of witnesses

Greg Hands MP and Joanna Whittington.

Q210 **The Chair:** I welcome our two witnesses, Minister Greg Hands and the director-general for energy and security at BEIS, Joanna Whittington. As you know, we have been taking evidence over the last few months. In fact, this is our 19th session. We have heard from a wide range of players in the industry, commentators in the industry, and academics. There is general praise for the Government's ambition and for some of the policy detail that has been put out, particularly in the last month, but a concern that there is a lack of specificity and granularity, and that policies now need to be turned into plans for implementation. We have just heard from Jonathan Brearley at Ofgem that there are a lot of policies that now need to have that detail if investors are to move and the timetable of getting to decarbonisation of electricity by 2035 is to be achieved.

I can read you some of the comments: there is "a political vacuum", and clearly a decision to avoid the "real problem" of deciding who pays and how things will be financed. There is the more general concern that unless decisions are made quickly we will slip behind the timetable, because there are decisions that need to be made now, which will take 10 years to reach fulfilment. Unless those sorts of decisions are made quickly, we will slip behind. Everybody is looking to you, Minister, to give us the answer. What are your priorities? What do you think needs to be done, and done quickly?

Greg Hands MP: First, apologies from the Secretary of State, who was originally scheduled to appear before you. He is unable to do so due to a Cabinet committee meeting taking place concurrently, but thank you for giving me the opportunity. In fact, this is the first Select Committee that I have appeared in front of since moving into this role two months ago. For five years or so, I was at the Department for International Trade. Prior to that I was at the Treasury, so it is a good opportunity for me to come along and interact with you this morning on what is a huge brief.

The energy and climate change brief used to be an entire government department led by three Commons Ministers and one Lords Minister, so it is quite large. It is not wholly within my scope. Lord Callanan, who you will be very familiar with, covers the decarbonisation of buildings and the consumer end of much of this, but broadly speaking this sits with me. I have with me this morning Joanna Whittington, my director-general for energy, as you have already introduced.

Having gone through some of the evidence that has already been presented to you, I have seen how thorough, wide ranging and wide scoping your inquiry has been. In terms of where the Government are, the major change since the start of your inquiry has been the publication of the Government's net-zero strategy on 19 October. That was published at the same time as the heat and buildings strategy, which you may also well be looking to probe. That area sits more properly under Lord Callanan, but Joanna and I will be able to answer any questions on that.

What does the net-zero strategy do? It sets out how we will get to net zero by 2050 and all the staging posts along the way: how we will meet the different carbon budgets coming up, how we will meet the challenge, as well as how we will take advantage of the opportunities that this will present, because it is not just a series of challenges; we also need to look at energy and climate change policy as a set of opportunities.

You rightly mention the ability for the UK to be a first mover in many of these areas. Let us face it: we have been a first mover in particular fields, such as offshore wind. I was at the Treasury in 2015 when we made a major push into offshore wind, and that has really paid dividends. We now have the world's largest installed offshore wind capacity. We are No. 1. As the Prime Minister says, we are the Saudi Arabia of wind. That has been investing early, seeing the opportunity, and reducing the costs of that energy by two-thirds to 70% over the last five years. There are good opportunities for those who move early and can then become world leaders in that sector.

The net-zero strategy is a major part of the answer to your question. On offshore wind, we are not being complacent here. We are quadrupling our installed offshore wind capacity over the next 10 years. That is a challenging target, because it is not just about putting up a series of towers and turbines offshore. It is also about all the infrastructure, which your inquiry rightly delves into. We are also innovating with floating offshore wind. We have committed to having one gigawatt of floating offshore wind by 2030.

We are doing a whole series of other initiatives, some of which have a lot of attention and others that deserve a little more attention. Your committee is a good opportunity to highlight some of these. You will be aware of the ending of the sale of new petrol and diesel cars and vans from 2030. In 2035, all new cars and vans must be zero emission. I have already mentioned the decarbonisation of the electricity system by 2035. We have also announced big investments in electric vehicles grants and infrastructure, sustainable aviation fuel plants, and industrial carbon capture and storage. You will be aware of the existing commitment to have four clusters for CCUS by 2030. We laid out the first track of those clusters on the same day as the net-zero strategy: the HyNet cluster in the north-west of England and north Wales, and the cluster on the east coast and the north-east of England.

There are innovation projects to develop the green technologies of the future, such as the new boiler upgrade scheme. These are the grants of up to £5,000 to kick-start the heat pump market in this country. There is a nature for climate fund and the development of nuclear. I am not sure how wide ranging your inquiry wishes to be, but a lot of extra funding on nuclear has been announced by the Government over the last few months.

In the Lords you are soon to have the Nuclear Energy (Financing) Bill. We have just completed the Committee stage in the Commons; I expect it will be coming to you early next year, showing how the new RAB model

for nuclear power stations will make the cost of nuclear much more affordable for consumers overall.

We continue to work very closely with Ofgem, supporting the development and monitoring of the administration policies that affect net zero. I expect that your questioning will probe us a little more on that. We work very well with Ofgem. In the two months I have been in the role, I have had in the region of 30 meetings with Ofgem in one way or another, dealing with immediate short-term issues such as solar processes or what is going on with Bulb at the moment, but also longer-term approaches to reforms, the price cap and the consultation that it will shortly be embarking on regarding the workings of the price cap.

I certainly know that my officials have a very close working relationship with Ofgem, while respecting the independence of the regulator. Two months into the job I would describe my relationship with Ofgem as being healthy, productive and a good exchange of information.

I hope that gives you some insight into how we are approaching things overall. As I say, it is an enormous brief. Every time a government reshuffle comes along I go through my mind beforehand as to the jobs that one might get offered, if one is lucky enough to be one offered at all. I always look at this one and think, "Now, that is a fantastic opportunity". As I say, it used to be an entire government department. For a Minister of State to have that big an area in their inbox is good news and a great challenge. There are a lot of issues in energy, many of which are within your inquiry, but I am very pleased to be in the role and delighted to be with you this morning.

Q211 The Chair: Thank you very much for that wide-ranging introduction. We have, as you will know, taken evidence on quite a few of these things. This is the general refrain from investors: "We don't yet know enough. We don't yet have clear enough guidance on these matters", or, "The steps that are being taken are puny in relation to the challenge".

You talked about the heat and buildings strategy. As you say, there are £5,000 grants from next April, which will fund 30,000 installations. The requirement in the government strategy is that there should be 600,000 heat pumps a year by 2028. How do you scale up these plans? You talk about offshore wind and the desire to go from 10 gigawatts to 40 gigawatts. That requires a huge infrastructure investment. As you say, wind has proven to be an attractive area for investors, but investors are not going to come into that area, particularly on such a scale and in deep water, unless they are very confident that the infrastructure will be put in place. What are the Government doing to ensure that is the case?

More generally, how do you satisfy yourself, as a new boy in the role if you like, that the measures in place are sufficient to enable the strategy to be met? Yes, the policies are there, the ambition is there and there are investors waiting in the wings. There is the big issue, which we will come to later, about who pays and how much of that burden falls upon the consumer, but how do you satisfy yourself that there are a sufficient

number of levers being pulled, buttons being pressed and funding arrangements being put in place, and that there is a proper regulatory oversight of what is a huge energy system transition, the largest we have ever been through? How do you keep tabs on this?

Greg Hands MP: Thank you for the interest, particularly in how one approaches a job such as this. I know many people about the table have had senior roles in industry and will know some of the challenges of having to deal with an enormous amount of information, an endless number of people wanting to knock on your door, and a lot of people wanting either to get your view or to give you their view. I will not pretend that that is an easy process, but we have a very good team of officials at BEIS, very good outreach, and a very good, supportive Secretary of State, of course, who used to do this role. That is unusual in the construct of government, when people get moved about and you tend to get diagonal movements rather than pure upwards movement. The challenge is definitely there in doing this role, along with the ability to prioritise.

The other high priority is the outreach to the sectors and visiting those involved in the sectors first hand. There is also a large amount of parliamentary interest in the role from both Houses. Compared to my previous job at trade, which was a slightly more niche area, the energy and climate change space has a huge number of parliamentarians taking a strong interest, which is very good news.

Let me start by contesting your initial statement: not yet "clear enough guidance". You said that the steps were puny against the challenges. In fact, our net-zero strategy, which we deliberately published a couple of weeks before COP, was to set the scene for COP. We wanted to go into COP and say, "The UK is a leader in this space and it would help us to get other countries to sign up to strong commitments at COP".

That turned out to be the case. The net-zero strategy got very good reviews internationally from those in this space. Many commentators in other countries said that the net-zero strategy from the UK was a model for others to follow, so it was well received. When you talk about the steps, you are talking about a transformation over what is effectively now a 29-year period. The easy thing, which you and I would agree on, would be to kick it all to the back end and say, "We can sort all this out in the 2040s". The whole committee would agree that the time for action is now. The UK has a good record in this space. In my adult working lifetime since 1990, we have reduced emissions as a country by 44%, at the same time as growing the economy by 78%.

I do not want to go off on a tangent, Chair, but I remember a European election in 1989 where one of the parties, not yours or mine, offered the platform that it was impossible to do anything about emissions if you are still growing the economy. That was the UK Green Party. Actually, the country, under successive Governments, has shown that that is not the case. You can grow the economy while reducing emissions. We just need to be doing more of that and doing it more quickly. The basis is already

there. Take the success on offshore wind: how do we quadruple that going forward?

On the heat and buildings strategy, this area has attracted some commentary. You are right that our target is 600,000 heat pumps by 2028. On the face of it, the amount of money in the heat and buildings strategy for this, £450 million, does not go a long way, but that misunderstands what we are trying to do here. We are not trying to have the Government come to every home in the country and install a free heat pump. We are trying to provide support for the market to roll out a proper private sector approach to heat pump installation.

We have already had some success. In fact, on the very day of the publication of the net-zero strategy, Octopus Energy—I am not here to advertise any particular energy company, because others will be in the same space—said that it thinks it can get the price of a new heat pump down to what it described as an equivalent price to a gas boiler by the time of the launch of the scheme. I think that means an equivalent price over the lifetime of the heat pump vis-à-vis the gas boiler, which it can actually work already thanks to the government support that is being put in place. The government support is there to kick-start a market in heat pumps and other low and zero-carbon options for home heating, rather than following a one-size-fits-all approach.

In terms of making sure that the infrastructure is in place, we will be responding on the offshore transmission network review, which we consulted on over the summer. I will bring in Joanna to give a little more detail on that, but you are right to ask questions. It is all very well to say that we will quadruple the amount of offshore wind, for example, but we need the network capacity to take that on board.

Your other point on investors is enormously important. I mentioned that I had previously been at DIT for the best part of five years, and I was previously the Minister for Investment, which is now a role filled by Lord Grimstone. One of the reasons why his role was created, straddling BEIS and DIT, was to think about how to bring in, in particular, more investment into sectors that are very important for UK domestic business. How do you marry international investors with the needs of UK domestic energy production, transmission and consumer energy? That is a really, really important role going forward.

We have had some success on foreign direct investment, particularly going back to the example of offshore wind. We would not have been able to do 10 gigawatts of capacity without those other investors, typically from Denmark, Spain and other friendly countries, I would say, coming and investing in our offshore wind capability. Being able to open up to investors is a key part of this going forward. I work very closely with Lord Grimstone, who you will be familiar with. He does a marvellous job in attracting foreign direct investment into the country, in particular.

On the network, I might bring in Joanna at this point to add a bit of detail on how we will approach increasing our distribution and transmission capacity.

Joanna Whittington: Just leaving that last point about the contract for difference, the critical component of getting the investment into the sector is about the right business models. The CfD has been enormously successful in offshore wind, onshore and solar. We are also working on business models to support the other technologies. Our ambition for the 2035 target of a fully decarbonised power system will require all the generating technologies to play their part. You are aware of the nuclear model being considered by the House, but in addition we have similar work under way for carbon capture and storage. We are intending to evolve the CfD with an allocation round starting this December.

However, as you rightly say, the technologies on their own will not be sufficient. In addition, we need to look at the capacity of the networks to meet this almost doubling demand for electricity by the end of 2050. By 2035, we see a 40% to 60% increase in demand for electricity. We and Ofgem have commenced work on an electricity network strategy. We have already commissioned the work and are reviewing the results of the offshore transmission network review, because although we have a system in place that has been enormously effective for accommodating the existing 10 gigawatts, if you will go to 40 gigawatts by 2030, you need a much more co-ordinated approach.

We have two things to do. We have to look at those projects that are in flight, because, as you said earlier, there are massive lead times for some of this. There are already projects that have plans in place and we need those to be better co-ordinated to minimise the impact onshore, but we then need to put in place an enduring regime, because 2030 is not the end of this. We will need to continue to expand the offshore capacity, and we need a similar set of arrangements onshore.

Ofgem already has a framework of price regulation, which you have talked about, that supports the expansion of the onshore networks, but the question is really what we can do to invest ahead of need in order to minimise the overall impact and make the system as efficient as possible, recognising that we are using electricity, broadly speaking, to decarbonise the rest of the economy. We should be expecting more network infrastructure alongside the big technologies of generation.

There is one other point I would add, which is about the role of the system. The types of technology that we are bringing on have very different characteristics, so we need to make sure that we have both the physical network capacity and the system operation in place to allow us to operate with the same level of resilience at least cost to consumers, so there is a massive piece of work about system reform as well.

The Chair: Can I just come back, Minister, to your point about attracting inward investment and investment generally? IHS Markit, a global data company, has published rankings for the world's most attractive market

for renewable investment. We started off the year at position No. 11. We are now at position No. 10, behind the United States, China, France, Germany, Italy and Brazil. Our low position in this ranking in terms of our ambition—we accept that the ambition is to bring in £90 billion—is in part due to lack of clarity about the investing environment and about government policy. This is an external, independent body, which is not quite sending the message out to investors that I am sure you would want. Do you recognise that there is more to do? What do you believe are the most important things that you can now do to improve our attractiveness to offshore investors?

Greg Hands MP: I am not familiar with that study, but I am happy to have a look at it in more detail. In my experience, the UK has been an attractive place to come in and invest. In May, for example, I was at Iberdrola's headquarters in Madrid. Ignacio Galán, the chief executive of Iberdrola, was very enthusiastic about the UK as a place to invest. At the recent Offshore Wind Industry Council conference I met with a series of investors, including Ørsted, Vattenfall, Vestas and others, which were also enthusiastic about the UK as a place to invest in renewables.

One of the keys to investment is the certainty of the regulatory regime, and the UK offers good certainty in terms of where we are going. We outlined in the net-zero strategy how we will get there and all our different requirements. They all know that the UK is very serious about the supply chain and making sure that there are job skills attached to that investment. We have a robust capability here.

An area we need to work more on is getting the benefits and the opportunities in the UK out to international investors in particular. How can you directly invest into renewables in the UK? We know there is huge demand out there to invest in global renewables. We know that it is a competitive area. What are the actual opportunities in the UK? That is something we need to continually work on, making sure that they are available.

I need to have a look at the actual study, but I would not accept the premise that there is a lack of clarity on government policy. Our policy is absolutely clear in different areas. We have mapped out where we will be on offshore wind and where we will be on new technologies such as floating offshore wind. On tidal, we have just announced a £20 million ring-fenced pot in the upcoming CfD auction that Joanna has referred to. On nuclear, we have the £1.7 billion in the strategy on bringing a further nuclear power station to its financial investment decision this Parliament, the £210 million extra on small modular reactors, and the £120 million on the nuclear innovation fund. All of these are very clearly mapping out where government policy is heading in the energy sector.

In terms of traditional oil and gas, we also have the North Sea transition deal, which is coming up to its one-year anniversary. That also outlines where we are heading in the North Sea. There, the key thing is transition. The North Sea is still a very investable proposition but, recognising that it is changing, we are working with the sector. I do not think any country in

the world has such a deal that we have. How do we work with the sector to get the North Sea to be part of the answer to moving to net zero? That is another area where there is clarity of government policy.

Just yesterday I chaired the North Sea Transition Forum with the oil and gas majors, with the Oil and Gas Authority, with Oil and Gas UK, and with the devolved Scottish Government—energy is reserved, but they have an interest in some of these areas—and was making sure that people understand the direction that the Government are taking in these areas. So I think there is clarity of government policy. There is clarity about the regulatory side. It is important to look, as you rightly are, at the role of Ofgem, of OPRED, when it comes to the North Sea in particular, and of other regulators. There is clarity out there.

Overall, you will know that the UK is robustly the No. 1 destination for foreign direct investment coming into this country. It is important that we, overall, as a government—I am talking across all sectors—remain No. 1 in the world. That is a pivotal part of government strategy. The Office for Investment is co-located in No. 10 and DIT. It is a really, really important part of that as well. The Government have a massive priority in investment and a huge priority in setting out how we will get to net zero. After all, that is the purpose of the net-zero strategy.

Q212 Lord Burns: Good morning. The committee is very conscious of the huge challenge for government of co-ordinating activity across this great range of things and where greater integration is needed with energy, heat, buildings and transport. Could you take us through the arrangements that are in place within government and the wider public sector for co-ordinating these net-zero policies? How do you see this evolving as we get closer to planning and delivery? Some people have argued that there is a need for a new government agency; some have argued that this is a job for the future system operator or Ofgem, or are you simply content with the way things are at the moment to take us forward?

Greg Hands MP: I can answer that in three parts. The first is mapping out the government vision. That is the most important thing, so everybody understands that. The most digestible part of the government vision is the Prime Minister's 10-point plan, already referred to and published about a year ago, which sets out clearly what we want to be doing in this space over the coming years. We have the energy White Paper, published also about a year ago, and then we are into the net-zero strategy. If anybody were to ask, "What is the government plan?", I would refer them to those three things.

Secondly, in terms of government structures, you are absolutely right that BEIS does not own all these policy levers—far from it. We need to work well with a whole host of government departments, such as Defra, DfT, DIT and DLUHC, if I am pronouncing it correctly—what used to be DCLG—in all these areas, particularly on heat and buildings and so on.

In terms of how government is structured, there are the two key Cabinet committees: the climate action strategy committee, chaired by the Prime

Minister, which makes the clear strategic decisions that need to be made; and the climate action implementation committee, which takes those decisions, monitors and checks the progress on the implementation across government.

It is important that the net-zero commitment feeds across to what other government departments are doing. The integrated review, for example, set out that climate action was the UK's No. 1 international policy, so we have to make sure that our international efforts, not just in the lead-up to COP but beyond that, are very, very aligned on the Government's climate change agenda. The recent Environment Bill is making sure that the wider range of environmental policies, from agriculture through to maritime, are fed into or pay heed to our net-zero commitments. Beyond that, it is cascading further down into the system, into the devolved Administrations and local authorities, all the way down to individuals.

The UK can be proud of what we have done as a country in this space in the last 30 years, but there is still an awful lot more to do. I do not have any opinion polling in front of me, but I would suppose that public awareness in the UK of net zero is probably higher than in many, if not most, other developed countries. We are making sure that people understand what we mean by net zero, what we mean by progress and the actions we need to be taking, as a Government and all the way down to individuals.

I do not know whether Joanna wants to add anything, but I hope that outlines to you how I see the structure of this.

Lord Burns: I think that outlines very well the higher level of the structure. The question is about the next levels down, as one comes to the planning, implementation and delivery of this.

Joanna Whittington: The Minister has set out the net-zero piece as a whole, recognising that it is a transformation of the economy. We see a need for greater co-ordination, both to move at the pace we need, and to reflect on the fact that we have a lot of new technologies coming on to the energy system and that there are interdependencies between them, whether it be heat and hydrogen, hydrogen to power, et cetera.

That is why earlier this year we consulted on the role of the future system operator, recognising the breadth of responsibilities that you might want to give that organisation, but simultaneously not wanting to lose the proximate sense of it being linked to the operation of the system, not as a Civil Service body, but as something very close to the industry that provides the strategic planning and context for future policy decisions by government or, indeed, implementation by Ofgem depending on the nature of it. There is a really important role for a future system operator that provides that co-ordination, if we are to move at the pace needed in order to hit those ambitious targets.

Lord Burns: How do you see the split of responsibilities between the future system operator and Ofgem? We heard this morning from Ofgem

that some of its activities could move to a future system operator, but maybe they would not.

Joanna Whittington: The starting point is that it should suit the natural skills that each organisation brings. For the system operator, its starting point is that it operates the system today, so it has a really good technical knowledge of how the system works and already provides, through its future energy scenarios, a sense of the transformation that you need in order to meet the targets. You would want to build on that.

It already delivers some functions on behalf of government; for example, it administers the capacity market. You might look further at the roles it could play in the delivery of those new schemes. We alluded in the document to the possibility that the tenders we might have for network competition in future would be administered by a future system operator. It is very much building on its core strengths and recognising the role it can play in delivery as a body that is expert in operating the systems of today.

Q213 **Lord Sharkey:** I would like to continue the conversation about the future system operator. Can you give us some guidance on the extent to which you think the FSO should be a delivery body as well as a planning body? What functions, if any, should be transferred to the FSO from Ofgem? In this network of actors, who should the FSO report to?

Greg Hands MP: I will hand over to Joanna, who is better placed than I am to handle the detail, but we recently consulted jointly with Ofgem, as you know, on the future operation of the system, with a proposal to create a new, independent FSO. The consultation was put out in July and closed recently, and we will need to understand those responses.

As Joanna already mentioned, we want to have a body that is future facing and able to think clearly about the implications of new technologies, or sometimes older technologies that have been given a new face, such as new uses of hydrogen, which is certainly not a new technology; it has been with us since time immemorial. In terms of exactly what we will be doing, we need to study the responses to the consultation first, but Joanna can probably add a little more colour to that.

Joanna Whittington: I completely agree that we have to reflect on the many responses we received to that consultation. We are not in a position to say what decisions we have taken in this space. We have not suggested an expansion or a change in decision-making roles. Some of the questions you might want to consider are about the accountability of a system operator compared to, say, a Minister. Given the significance of the decisions that a system operator could take in this space of net zero, both the pace at which we deliver it and the technologies we bring on the system, it is really important that you retain that very strong democratic accountability, because net zero will depend on citizens and consumers supporting this for a long time.

The focus of the consultation document was to think of it as an expansion of its current roles, recognising the importance of covering more than just gas and electricity, and then to think about what delivery work it could do, but not to change the decision-making roles, so that government would continue to take the really important decisions about what levers to pull in relation to deploying technologies.

Lord Sharkey: Am I right in thinking that the existing ESO actually reports to Ofgem?

Joanna Whittington: It is regulated by Ofgem.

Lord Sharkey: Do you envisage the future system operator also being regulated by Ofgem?

Joanna Whittington: We absolutely think there is a role for it to remain a licensed business so that it is, indeed, regulated by Ofgem for the outputs that it needs to deliver in order to continue to balance the system today, which imposes costs on consumers. It is only right that somebody sets it a regulatory incentive regime to maintain that.

We also need to look at how you regulate it for different sorts of outputs such as a strategic business plan. That is a much harder thing to do in regulation, because it is not about just setting pounds and pence against a particular set of metrics. It is more about the qualities, so the nature of the regulation might change to accommodate the broader set of responsibilities we see a future system operator having.

Lord Sharkey: The ESO is in the private sector. Do you see the FSO as being in the private sector?

Joanna Whittington: We consulted on two possible models and that is one of the things that we will want to decide following the consultation.

Lord Sharkey: Can I talk about the speed of action on the establishment of the FSO? One of our witnesses, Simon Virley from KPMG, has called for the FSO not only to be given broader planning and delivery responsibilities, which you have touched on, but to be established immediately in shadow form rather than waiting until 2026 for it to come into legislative existence. Do you have a view about that?

Joanna Whittington: We would not want to get in the way of the pace at which decarbonisation needs to happen. It needs legislation to implement it in full. The question is what we can do under the current structure to move in that direction, in order that we are able to not inhibit the pace with which new technologies in particular are rolled out. That is clearly in the interests of its existing shareholder, as well as us more broadly.

Lord Sharkey: The creation of a shadow form is very familiar to Whitehall. Does it have merit in this case? Could we move more quickly if we had a shadow form?

Joanna Whittington: We need to carefully consider the consultation responses and what we want the final landing spot to be for the future system operator. As you hinted at, there are some quite big questions about where that is going. We then need to operate in a way that takes us on that journey without delaying implementation of key decisions, because of the massive lead times in some of the technologies.

Q214 **Lord Sharkey:** Can I now turn to Ofgem itself? I will ask a simple question. Should Ofgem be given a primary duty to achieve net zero?

Greg Hands MP: Let me try to answer that one. Ofgem's current duty to consumers encompasses net zero. That is obviously in the interest of consumers. On the face of it, I do not see a necessity to change the statutory definition of Ofgem's role for it to be able to take account of net zero. I do not see the need to positively put that in a piece of legislation.

Lord Sharkey: We heard from Jeffrey Hardy, ex-Ofgem, that it was quite difficult to get decisions taken while balancing all Ofgem's current duties without ending up in a bit of a fudge or a mess. Other witnesses suggested to us that Ofgem gives too much weight to short-term affordability considerations. Are you satisfied that Ofgem takes strategic, long-term net-zero considerations properly into account when it fulfils its various duties?

Greg Hands MP: It is a very good question. We have the commitment to consult on an energy sector strategy and policy statement for Ofgem. The commitment was to do that during 2021, which we may not be able to meet, but we will do it quite soon. I think, overall, the duty to have heed to net zero is sufficient within that menu of options.

I am not sure I would criticise Ofgem—to be fair, you reported criticism rather than making it yourself—for being too focused on the short term. Ultimately, it is a utility regulator. It is extremely important that consumers can have confidence that this market is well regulated and has good oversight, and Ofgem performs that very well. I would be nervous about changing that fundamentally, but I point out that there is this consultation coming up on the strategy and policy statement.

Lord Sharkey: Ofgem is remarkably well peopled in comparison with utility regulators elsewhere in the world. It has many more people working for it than comparable regulators elsewhere. Part of the reason suggested to us is that Ofgem has been given lots of other things to do over time and is no longer a purely economic utility regulator. Would there be merit in going back to basics with Ofgem, restoring its status, hiving off all these other things that it does and going back to its base of being an economic regulator?

Greg Hands MP: That is a marvellous question. I will bring in Joanna on some of the detail. You make a good point. Different pieces of legislation are adding to Ofgem's duties. The Nuclear Energy (Financing) Bill, for example, gives Ofgem the duty to monitor the RAB—regulatory asset base—process, which is a financing scheme that will be familiar to

members but is new to the energy sector, and most particularly to the nuclear energy sector.

From what I have seen so far, Ofgem is more than able to deal with these additional changes, but one of the reasons why we want to get some more views is to look at some of these questions going forward. I will bring in Joanna on the specifics of Ofgem's role going forward, but you raise a good question. Does adding on additional duties deflect from its primary duty? Do they build on and work seamlessly with the primary duty?

Joanna Whittington: As you rightly say, Ofgem has responsibility as the economic regulator. It also delivers a number of schemes on behalf of government and we continue to keep it under review, not least because there are more things that we think need to happen in a net-zero world. By operating those schemes, we get the benefit of understanding the regulatory implications and how they will play out in the market. In helping us design those schemes, it can reflect its knowledge as regulator back into the schemes. There is potentially quite a lot of value in having a body of people who are expert in the energy market system shaping the delivery of government programmes, but also regulating the market and networks in the way that we know they do.

The Minister referred to the importance of setting out a strategy and policy statement so that we can be really clear of the link between what government wants to see for the sector, particularly in the context of net zero, and what the regulator needs to deliver, recognising that it has, as you say, this principal objective to protect the interests of future as well as present consumers. There is then a series of other duties that sit underneath that principal objective, which reflect different aspects of the consumer interest.

It is really important that government is then clear about what you take from all the documents that we have been talking about, the net-zero strategy, the heat and buildings strategy, et cetera, and how that funnels into the system of regulation. Our consultation on the strategy and policy statement will be the opportunity to do that. That then creates a legally enforceable obligation on Ofgem to set out how it takes decisions against the strategy and policy statement.

Q215 **Baroness Noakes:** Witnesses have told us that Ofgem has been drawn into making trade-offs between affordability, security of supply and decarbonisation, which should have been settled at a political level, and that it has had to make these decisions because of a lack of clarity from the Government. Should there be a greater differentiation between the policy and regulatory roles, and do you accept that there is a problem here?

Greg Hands MP: Sorry, who said that?

Baroness Noakes: Witnesses told the committee.

Greg Hands MP: Those witnesses were not from Ofgem; they were commentators.

Baroness Noakes: That is correct.

Greg Hands MP: Chair, I am sorry to ask questions of committee members, but did you ask Ofgem whether it recognised that?

Baroness Noakes: We did. You are here giving evidence at the moment, not Ofgem.

Greg Hands MP: No, I appreciate that and I know you had Ofgem in earlier. It just might have been interesting, when commentators are saying that Ofgem is forced to make these trade-offs, to ask Ofgem if it thought so.

Baroness Noakes: Let us have the government view.

Greg Hands MP: The answer is already given. We will be consulting further, but at the moment I do not see there being a problem with Ofgem being, in the words that you are reporting commentators as saying, forced into making these political decisions or trade-offs between their different roles. I do not recognise that as being an issue and I am not aware that it has been raised with me by Ofgem or, indeed, by those in the industry. I might bring in Joanna, who has been more familiar over a longer period with the duties of Ofgem, to perhaps add a bit of commentary on that.

Joanna Whittington: What you have described are different aspects of the consumer interest, are they not? You would expect GEMA, Ofgem's board, to take them into account and balance them when it reaches any of its regulatory decisions. We have now published an enormous amount on how we expect net zero to be delivered, both across the economy and in the energy system. This is why we think it is the right opportunity to cascade that into a greater steer for Ofgem on this, through a strategy and policy statement.

Baroness Noakes: What you are both saying is that it is for Ofgem to make those trade-offs.

Joanna Whittington: Yes, within the context of government policy and legislation, and in due course we expect, the strategy and policy statement.

Q216 **Baroness Noakes:** Witnesses also told the committee that there is sometimes a lack of clarity between the roles of government and Ofgem. Minister, you said that in two months you had had 30 meetings with Ofgem, which I frankly found shocking, because if you are having 30 meetings I cannot begin to calculate how that would multiply through at official level. That is supporting a hypothesis that Ofgem and BEIS are almost indivisible, that Ofgem is a convenient outpost of BEIS, and that there is no genuine clarity of roles. Should there be a greater differentiation between the roles of government and of the regulator?

Greg Hands MP: I will slightly contest the statement that meeting often means that people are not clear about their roles. You can meet people often while still being clear as to who does A and who does B. I am presently having a lot of meetings with Ofgem because of the big increase in international gas prices and the impact that is having on the market, which members of the committee will be well aware of. There is a role there both for Ofgem and for the Government, as we saw when Bulb ceased to trade last week, for example. There is a clear role for Ofgem and a clear role for the Government, but that does not mean to say that it is in any way unusual or disadvantageous for us to meet with Ofgem while still being conscious of our specific roles.

In the case of the solar processes and energy suppliers ceasing to trade, it is Ofgem that runs the solar process, but ultimately it would be the Government who would have to move in if the solar process did not work or if Ofgem took the view that the solar process was not appropriate for one of its energy suppliers. It is entirely right that the Government have had that level of engagement with Ofgem. I do a regular weekly meeting with the energy supplier market, so we are meeting directly with the market as well as with Ofgem.

Given high global energy prices, particularly in the gas market, with the read-across that has to consumers and the implication it can have for the Government going forward, it is entirely right that the Secretary of State and I have had that frequency of meetings since I have been in this role for the last two months. Joanna might know better than I do what the frequency is in more normal times, where energy prices are not as elevated as they are at the moment. I doubt there would be a meeting every couple of days, though.

Joanna Whittington: Reassuringly for you, perhaps, these two months are probably not representative of what energy markets always feel like. I would not expect that same level of engagement in more normal times.

Q217 **Baroness Donaghy:** Several witnesses have said to us that the regulatory framework as presently established is very much part of the post-privatisation world. It is a centralised model based on a small number of larger generators, and we need to move to a more distributed, flexible model, with a much larger number of generators, more flexibility, and demand-side response. In fact, one witness went so far as to say that the current system was run by engineers and it needed to be run now by change managers and retail experts. What is your view?

Greg Hands MP: This is exactly the sort of question that we will be trying to draw out in the consultation, I would expect: where we go from here? It is a classic. I do not accept the view that the whole area has been unchanged since privatisation. There has been considerable change since then, particularly in the retail energy market. With the energy price cap and the entry of new players back in 2016 and 2017, there has been considerable change in the market. I do not accept that the structure has been unchanged since privatisation.

Joanna will have seen over a longer period how the role of Ofgem and the market have evolved, but we will be looking to tease some of these things out in the coming consultation.

Joanna Whittington: We would expect the decentralisation that you have described to be a really important part of how we meet net zero. Anything we can do to reduce demand for electricity means that we have to build less network, less storage, less generation capacity, so it is clearly in the long-term interests of consumers. Going forward, we see the need for a centralised system. We are continuing to build very large nuclear power stations, which will deliver a huge amount of firm low-carbon power for 60 or 70 years at a time. That sits alongside the flexibility we want to see at a much lower level, at a distribution level, which will be in the form of smaller bits of generating kit and storage.

You will have heard from others about, for example, the opportunities that electric vehicles and their batteries might create. You do not need to move from a centralised to a decentralised system, but you need to have a system that allows centrally dispatched, centrally operated systems, with the national transmission system, to work in parallel with a distributed system.

As part of the future system operator's role, we are looking at the co-ordination that might take place with the distribution network operators, where some of these developments are quite embryonic, and whether we need to see greater development of a distribution system operator that allows the flexibility markets to operate at a very local level as well. Yes, we expect to see decentralised and centralised operating together.

Baroness Donaghy: You referred to new players in the market, but some of those new players are now deceased players. Do you think that the risk-based regulator is doing the right job? Is the balance right?

Joanna Whittington: The deceased players you are referring to are the energy suppliers that have recently left the market. The Minister has already talked about the exceptional high global gas prices that we have seen increasing from the beginning of the year, but in particular from August onwards, and the impact that has had on a number of supply businesses. It leads to questions about what we expect the future of the energy retail market to look like and, in particular, what regulation needs to support that so consumers can feel confident in the resilience of the energy system. I know you have heard from Ofgem about some of the changes it has already made, but also the necessity to reflect on what we are still learning and might need to make in future.

Baroness Donaghy: The former chair of Ofgem, David Gray, told the committee that a significant reform and simplification is required to industry codes and licences as a basic enabler of other developments needed for net zero requiring legislation. Do you agree that this is the case and, if so, will you be bringing forward legislation to this effect?

Joanna Whittington: Absolutely, we think that, alongside the future system operator, codes reform, so the rules of the system, if you like, is an incredibly important part of what needs to change to deliver net zero. That is why we set out a potential role for Ofgem in providing that strategic direction, as well as reform of the code management function. As and when we have legislation, we will be looking to see what we can take forward in that space.

Baroness Donaghy: Do we have any idea when that legislation will be forthcoming?

Greg Hands MP: We have a commitment to a third Session energy Bill, which could be a place to put this kind of legislation.

Q218 **Lord Reay:** You have touched on this question already, but what lessons would you say have been learned from the experience of the significant number of retail energy supply suppliers going bankrupt in recent months? Ofgem has announced a few potential changes and admitted that its regulations have been deficient in areas. Would you say that more overarching changes are needed?

Greg Hands: I am not sure that Ofgem has admitted deficiencies. It published its letter, which goes into some detail on the coming consultation on the workings of the energy price cap and other issues. That consultation is expected to be launched imminently and will report in time to inform the April price cap reset, but I do not recall seeing deficiencies being admitted in the letter. Your general question about the lessons is a very good one. More than 20 energy suppliers have ceased trading in the last two to three months.

The energy price cap has been an established part of the energy market for some time. I do not think that any of the energy suppliers could claim that it came as unexpected to them. I would have expected energy suppliers to be properly hedged. That is the expectation that we have and that Ofgem has. Ultimately, that is a decision for the energy supplier, but a well-hedged company has been in a much better position to ride out the big increase in global gas prices we have seen, in particular in the last two to three months.

There are lessons there for companies. The wider lessons are something that Ofgem will be looking to tease out in its consultation. We at BEIS also take a strong interest in those lessons. My primary lesson would be that the nature of the retail energy market has not changed in those months except for the high price, and those companies should have seen what the rules of the market were, going into the rise in prices. Many of those companies have been able to ride out that rise in prices so far because they have been well hedged and have approached it with a sensible hedging strategy.

Lord Reay: Are you concerned that, if there is a significant price cap increase in April, which seems very likely, it will affect public support for net zero?

Greg Hands: It is important to differentiate between the two. The onus is always on government to communicate well. There is support in place, as you know, for more vulnerable households through the warm homes discount and through other government assistance for billpayers. That will provide a lot of assistance. I think consumers will understand. We as politicians sometimes underestimate the ability of consumers to understand something such as a sustained period of global high energy prices. Consumers will understand that and I am confident we will be able to distinguish between global high energy prices and net zero, but the connection in their bills will be driven overwhelmingly by global high energy prices rather than any consequences of net zero.

Q219 **Lord Reay:** Some witnesses to the committee have suggested that there has been an excessive focus on consumer switching in the retail market, including BEIS. It assumes that greater switching is evidence of a better market, whereas it could just signify dissatisfaction. Do the recent issues in the retail market and the potential need for longer-term relationships between suppliers and customers suggest that the Government should move away from a focus on switching?

Greg Hands: How consumers behave with their energy suppliers is primarily a matter for Ofgem, but I might bring in Joanna to see whether we have some specific view on switching.

Joanna Whittington: We do not see consumer switching as a metric of success in its own right. It is certainly a metric of engagement, but, as you imply, it can be both positive and negative engagement. Our aim for the retail market tries to do two things. In addition to learning the lessons from the past, and indeed the lessons we are learning through this winter, we want a market that delivers fair outcomes for consumers. That means good prices, a variety of tariffs and high-quality customer service, but we also want a market that delivers for net zero.

We want to see innovation taking place in relation to new products, potentially heat pumps and encouraging the deployment of electric vehicles, but also to provide the right incentives that create a system that is low cost overall so that we are not charging our cars in the teatime peak. We want an evolution of a retail market and there is no single metric that properly reflects that. I would not say that switching on its own was a good way of judging it. That has not been the government position.

Q220 **Lord Reay:** Minister, how concerned are you that high energy prices in the business sector are harming business, reducing our manufacturing capability, some of which is moving abroad, and serving to export our emissions?

Greg Hands: Obviously we are concerned at high global energy prices right across the board. It is not within our control but has big potential impacts right the way across the economy. In terms of the impact on business, the UK benefits from being in a relatively good position, particularly when it comes to gas, in that 50% of our gas comes from the

UK continental shelf. An additional 30% comes from Norway, so we are not as exposed to the vagaries of global gas supplies as some of our European neighbours might be.

I would be surprised if there is any thought of anybody moving abroad as a result of high UK prices, because our prices are not higher. This is a market that literally fluctuates by the second, but our prices are not higher fundamentally. The Government have provided significant support in recent years to help energy-intensive industries to meet the costs of elevated energy prices. That is in very specific sectors such as steel and ceramics, but in terms of the broader business base in this country, yes, we monitor this very closely. We are, after all, the Government's Department for Business, Energy and Industrial Strategy. All parts of that are within our title, so we watch that very, very closely.

I do not accept at all the contention that UK businesses in general will be facing this problem in a different or more difficult way than many of our competitors, and that that might be leading to a flight of business from this country. All the recent data shows the UK economy performing robustly, with the strongest growth in the G7 this year, projected to be the same next year, and employment and vacancy rates being very high in this country. To me, that does not match any scenario of businesses leaving this country as a result of high energy prices.

Q221 Lord Curry of Kirkharle: My question follows on from Joanna's last comment. We have had witnesses stating that the current energy supplier model has to change. Indeed, Joanna more or less confirmed that in her last comment. It needs to be much more flexible, agile and innovative. The current regulatory regime is slow moving, pedestrian, hard to navigate and not fit for purpose in meeting future energy supplier requirements. Do you accept that and, if so, what do the Government plan to do about it?

Greg Hands: I accept that it is a market that we need to look at. That is why we and Ofgem are doing the consultations that we are doing. I do not really accept that it is slow moving and hard to navigate. You cannot, on the one hand, have a large number of people entering the market and some leaving rather abruptly in the last couple of months, and then say that the market is hard to enter, hard to navigate or slow moving, because the evidence would not seem to support that. We need to get that balance right and make sure that the market is sustainable, consumer friendly and durable, as well as meeting all our other obligations.

To your question about whether the market is flexible, agile and innovative, I see quite a lot of innovation in the market. I see quite a lot of suppliers differentiating themselves in all kinds of novel ways. There might be a supplier for a particular area, community, region or type of customer. They might be offering multiple solutions and multiple utilities at once. I actually see innovation in the sector there, such that many observers would say it is quite an innovative sector in its own right. I might bring in Joanna to make any additional comments on that, but I

see that the market has been quite diverse and innovative in recent times.

Lord Curry of Kirkharle: Let me just expand, then. One of our witnesses said we need to have a “dynamic, fail fast, iterative and agile” regulatory approach. The assumption, linking to your previous comment about switching and whether that was appropriate, is that we move to longer-term contracts, as part of which kit might be supplied on a very different model than we had previously. The provision of heat pumps might be part of the contract as well as supply. Can the current regime accommodate that, or do we need to make changes?

Joanna Whittington: I am not quite sure that I want more “fail fast” right now.

Lord Curry of Kirkharle: It means that mistakes might be made in this fast-moving world, but we need to be able to accommodate that.

Joanna Whittington: Energy retail is the point at which the energy system interfaces with the consumer. As we have been discussing throughout this session, how the consumer and the citizen engages with net zero will be incredibly important for us to meet the targets. We should do all we can to use the energy retail businesses to make the case, to provide the different products and to get people to adopt this new technology because they want to, not because they are told to.

There is a really important part of the future vision for energy retail that beds them into the net-zero piece. Part of that is that they should be agile businesses that take account of the data, for example, that is now available to people through the use of smart meters or the way the distribution networks operate, with generators and batteries sitting alongside each other. This is the sort of thing that we would want to see more of.

Lord Curry of Kirkharle: Does the regulatory regime need to change to accommodate that?

Joanna Whittington: The regime does not need to change in the sense that they issue licences, then monitor and enforce those licences, but, in the broader context, how they regulate absolutely needs to change in order to reflect what is happening in net zero.

Q222 **Baroness Bowles of Berkhamsted:** The committee is basically repeatedly being told that consumers will need to be far more engaged in the next stage of the net-zero transition, particularly in energy. Ofgem’s own survey data suggests that many consumers are not aware of or ready to make the sorts of changes that are needed, even after encouraging years of switching. Many consumers are still not engaged in that, and we know that the story is no better when it comes to getting smart meters. How will consumers be taken on that journey to get them to make those changes? Is there a bigger role for government in providing clear messaging? How will that actually be achieved?

We seem to have core plans that define what has to be done, but rather less to tell us how, in nitty-gritty terms, that will be done, such that it appeals to busy consumers and does not overburden them with spending their evenings hunting about and programming all their appliances. Those are the sorts of fears that many of them have. There is a missing link. Who will do it?

Greg Hands: That is an exceptionally good and pertinent question. The onus is perhaps on all of us as politicians to make sure that our consumers understand what the Government and the market wish them to do. In that sense, I agree with you. The onus is on all of us to get out there more and tell people the importance of the choices that they will make.

It is also important for government to realise the slight limitations of what it can do in this space. Returning to the example given on heat pumps, the Government are not able to come into everybody's home and install a new heat pump, but they can kick-start a market and make sure that the private sector can respond and react well. That is what I am hoping for with the heat pump element of the heat and buildings strategy: the ability for government to stimulate a market that will then come in and move into that space.

In terms of making sure that consumer information gets out, I happen to be a regular reader of *Which?*, but I am not sure that all my constituents are. We need to make sure that information gets out there on how you can make an informed choice in this space.

On other aspects of this, I might ask Joanna whether there are specific campaigns that we have been doing in recent years to increase consumer awareness and interest in this space, which I personally find is quite high, certainly among my constituents. I get a lot of interest in energy pricing, net zero and making the right choices. It is quite a big part of my MP postbag, I have to say.

Joanna Whittington: The net-zero strategy had a really important strand about helping businesses and consumers make green choices more easily. As the Minister said, there are a range of things that we are looking to do. There should be lots of voices; it cannot just be a voice in Whitehall, so there is a responsibility on all of us. There are specific schemes that we have stood up. Simple Energy Advice is a specific government-supported scheme providing bespoke online advice to people about what they might do in their households to help make these choices. It is also beholden on people in the energy industry to be that extra voice that sits alongside it. There have been other areas where changes have come in through regulation, which has allowed greener products to come on to the system.

It is no one thing. A range of things need to happen if we will deliver this.

Baroness Bowles of Berkhamsted: I accept that there are lots of different things that make up the whole here, but energy suppliers are

not among the most liked and trusted people. I am not sure that their messaging will necessarily be well received. There will also be consumer reluctance while there is still debate going on as to who shoulders the cost of going to net zero. Does it all go on the householder who chooses to install the heat pump? What part of it should be shouldered, essentially, through the taxpayer, because it is a common good? Until that is resolved, people will be reluctant. Why pay for it if later on you might not have to?

Greg Hands: There are also good questions within that. Who pays for net zero? At the same time as the Treasury published the net-zero strategy, it did a report specifically on the costs of net zero, which I would refer committee members to.

Baroness Bowles of Berkhamsted: That is on costs, not payment.

Greg Hands: Yes, it was on the costs of net zero rather than how they get paid, but that would inform the overview. In terms of how they are paid, do not forget that embedded in the heat and buildings strategy was our fairness and affordability call for evidence, which we will be putting out next year, with a view to taking decisions as to how the levies on billpayers might be better balanced on electricity, particularly in reference to higher electricity and gas prices going forward. We will publish that call for evidence as a result of the heat and buildings strategy, so there will be government work in this space to find or improve the way that net zero is paid by the consumer, such that the balance does not create perverse incentives within the consumer scheme and so on.

That is what we are looking to do. We are looking at options to expand carbon pricing and remove costs from electricity bills, while seeking to limit the impact on bills overall. That will be part of that call for evidence going forward. The immediate elements will be a matter for the Ofgem consultation. Chair, sorry, I am mentioning any number of consultations going on, but these will be important and it helps me publicise the consultations coming up.

Q223 **Lord Burns:** Minister, you have covered one or two of the things that I was going to raise. It has been put to us by a number of people that the present policy of adding environmental costs to energy bills is regressive, in the sense that energy bills are a higher proportion of the expenditure of families with lower incomes. We have had our own representations—no doubt you will now receive them yourselves—about whether that should be more of a role for general taxation.

It is also curious, when we are looking to electricity-based solutions for things such as electric cars and domestic heating, to be adding environmental costs to the very bills that will matter most to people's decisions to move to these alternative forms of transport and heating.

Greg Hands: That is exactly the subject that the fairness and affordability call for evidence is seeking views on. I mentioned the point about perverse incentives. You do not want to create any perverse

incentives for people to move from a low or non-carbon alternative to a more polluting option as a result of this. That is exactly the sort of thing that will be in the call for evidence.

Lord Burns: A related point that has been raised with us is that the budget fails to provide long-term signals that investors need in that carbon pricing is announced only on an annual basis. Do we need more and longer-term guidance on the future path of carbon prices so that people are in a much better position to make these decisions?

Greg Hands: We have set out carbon budgets looking well forward over quite a time to come, I think 15 years now. Going back to investors, I think the UK will be one of the most predictable places for carbon prices, so we are well placed.

Q224 **Baroness Noakes:** Can you explain what you believe the Government are responsible for in relation to security of supply? I know that the Government have set targets for a significant increase in renewables, but that of course creates security of supply issues because of intermittence. Is it the Government's, Ofgem's or somebody else's responsibility to ensure security of supply in the UK?

Greg Hands: It is primarily the responsibility of government to make sure that we have security of supply in the long term. The best way to approach this is to look at having diverse sources of supply and make sure that as much as possible of this is home-grown. That is the huge advantage of the move into renewables, the renewed move into nuclear, and reducing our dependence on volatile fossil fuel prices, but also on less friendly states in the world.

The UK is well placed by virtue of our geography and geology to have good security of supply on all these fronts. The increase in nuclear to help provide that baseload, which would have been previously provided by coal and other fossil fuels, is a big part of it. As for the big increase in renewables, you are right to question what happens when the sun does not shine and the wind does not blow. That is a big role for nuclear going forward.

On our gas reserves, at the moment 50% of UK domestic consumption is met from the UK continental shelf. We need to make sure that we value that production and work well with the sector. That is why I mentioned the North Sea transition deal and the North Sea Transition Forum, which I chaired just yesterday. We need to make sure that that sector works well and to maintain our relationship with friendly suppliers such as Norway. Norway increased its production and supply to the UK on 1 October after the Secretary of State had a call with his Norwegian opposite number. Making sure of that will definitely assist security of supply. I see all these things coming together, such as diversity and making sure that we are dependent on reliable, friendly suppliers, if we have to be, outside the UK. Overall, increasing renewables and nuclear will be a big part of our security of supply going forward.

Q225 **Baroness Noakes:** It is extremely helpful to hear that we have a clear responsibility for the Government. Can I move on to the regulatory system and how it is said to reward generation as opposed to other elements of the whole supply system in particular? We have had evidence that the regulatory system does not well support investment in storage, because the regulatory mechanisms do not give sufficient certainty there, or flexibility in the system through demand management. Do the Government accept this as an issue in the current regulatory system? If so, what will the Government do about it?

Greg Hands: Let me bring in Joanna on the interaction between us and the regulatory side of things.

Joanna Whittington: This brings us back to the beginning of the session when we were talking about different business models needed to bring on new ways of operating the system. Storage and flexibility are products that matter much more to us now, in a world with higher levels of renewables, and will be a really important part of the system in 2035 and 2050. On the Government side, we need to work on developing the business models that bring that on. Practically, that might mean changes to the capacity market and how those mechanisms work. That will then feed into the regulatory system.

Baroness Noakes: Again, it is government responsibility.

Joanna Whittington: It is a combination of us setting the framework and then modifying the two big levers we have, which are the capacity market and the contracts for difference, to deliver a secure system that is on its way to meet net-zero commitments.

Q226 **Lord Allen of Kensington:** Minister, do you think Ofgem is doing enough to encourage strategic investment in the sector? You talked about the Government pump priming heat pumps and things like that. When you look at the most recent changes to RIIO-2 on price controls, reducing returns, increasing uncertainty mechanisms and making investing in energy infrastructure less attractive, the policies seem to be moving in a different direction from encouraging people. We have also heard from a number of investors, who are still not clear on the return on investment that they can achieve. What should Ofgem be doing now to address that?

Joanna Whittington: Ofgem has a price control process known as RIIO, which is the mechanism through which it attracts investment into providers for the networks. RIIO and the methodology that underpins it evolve to meet different circumstances. This time about, looking at the settlement for RIIO-2 for the gas transmission and electricity transmission businesses, you have seen more reopeners to accommodate the fact that there is some uncertainty over exactly what people will need to invest in. We are confident that there is a process in place that will mobilise the capital, which is important to this part of the decarbonisation piece.

The Chair: Minister, you asked about market research and whether a lot of market research has been done in this area. In fact, Ofgem has done

some of its own market research and there is other research available. The broad picture is that the vast majority of the population are very aware of the dangers of climate change and of the need to get to net zero, so there is a tremendous amount of support for that, but there is confusion about what we do.

The real question, which is we have been dealing with for the last 10 minutes or so, is who pays. "How much do I pay? How much is my bill going to increase?" To a certain extent—I am now guessing; this is not based on research—it will be exacerbated by what has happened in the global market for gas, because next April there is clearly going to be a rather nasty surprise. We do not know how big it will be.

There is then the question of the extent to which the losses incurred by the remaining energy suppliers will be recouped through additional amounts being added to bills. With that great uncertainty, there is, as you can expect, a reluctance for consumers to leap in and buy a heat pump or whatever, because they do not know. Your inquiry into fairness should be done speedily and swiftly, so that there can be clarity on that. Going back to the start of this meeting, clarity for investors is also predicated on some of these issues about how things will be paid for. You have much on your plate.

Greg Hands: Was that a question? Let me briefly say two things to that. First, on these things, we are trying to go with human nature. Going back to our favourite topic of heat pumps, we try to go with the fact that a gas boiler has an average life of about 15 years. We have said that we are expecting people to have acquired a heat pump or other low-carbon alternative within the next 15 years. In other words, rather than banning gas boilers or making heat pumps compulsory in a very short time before the market is really able to set itself up to react, we are moving with human nature, which will be that, within the next 15 years, virtually everybody will have to replace their gas boiler anyway. That is what frames the timeframe on heat pumps.

Secondly, winning the argument on net zero means really strongly getting across the opportunities that are out there in moving to the low-carbon, net-zero economy, and talking about the green industrial revolution. The Prime Minister's 10-point plan for the green industrial revolution focuses on the opportunities here. We use the figure of 440,000 new green jobs by the year 2030, trying to get across, particularly in communities, that, yes, there are challenges here with the net-zero agenda, but there are also huge opportunities for the UK in being a relatively early mover on a lot of these technologies. That is a key way of winning that battle out there.

You are right that there will be bumps along the road, when bills, as at the moment, due to high global gas prices and so on, may lead to people asking questions. Getting people to buy into this by talking about the opportunities that this current and future net-zero, low-carbon world offers them is a key part of sealing the deal and keeping that high level of public support that we already have in the UK.

The Chair: Minister, Joanna, thank you very much indeed for your answers. Thank you for being so generous with your time.