

## Welsh Affairs Committee

Oral evidence: [Grid capacity in Wales](#), HC 218

Wednesday 8 June 2022

Ordered by the House of Commons to be published on 8 June 2022.

[Watch the meeting](#)

Members present: Stephen Crabb (Chair); Geraint Davies; Ruth Jones; Ben Lake; Beth Winter.

Questions 102 - 153

### Witnesses

**I:** Rt Hon. Greg Hands MP, Minister for Energy, Clean Growth and Climate Change, Department for Business, Energy and Industrial Strategy; and Paul Van Heyningen, Deputy Director, Net Zero Electricity Networks, Department for Business, Energy & Industrial Strategy.

Written evidence from witnesses:

- [Department for Business, Energy and Industrial Strategy](#)



## Examination of witnesses

Witnesses: Rt Hon. Greg Hands MP and Paul Van Heyningen.

Q102 **Chair:** Good morning. Welcome to Committee Room 16 in the House of Commons and this session of the Welsh Affairs Committee. I am delighted that we are joined this morning by the UK Government Energy Minister, Greg Hands, and by an official from his Department, Paul Van Heyningen. It is great to see you both. We will be looking at grid capacity. This is the final evidence session of our inquiry into grid capacity in Wales. Minister, I understand that you would like to start the session with a three-minute introductory statement.

**Greg Hands:** Thank you, Mr Crabb. I am delighted to be here to give evidence on electricity networks in Wales. I am joined by Paul Van Heyningen, my deputy director for net zero electricity.

I will begin by emphasising the crucial role that electricity networks across Great Britain need to play as an enabler for our decarbonisation and energy security targets. The network needs a transformation so that it can accommodate a massive increase in low carbon generation, including our ambition of 50 gigawatts of offshore wind by 2030 and 24 gigawatts of nuclear by 2050, and a doubling of demand, which is really important to understand in this context as we electrify sectors including transport, heat and industry. That transformation has to happen at both scale and pace.

Looking specifically at Wales, the grid has good transmission infrastructure along its south and north coast, and mid Wales is primarily served by distribution networks. Both networks need investment to avoid future capacity constraints as Wales realises its significant potential for renewable generation. It is an absolute priority for the Government that the grid in Wales is able to support the coming energy transformation. Fundamental to achieving this will be more strategic approaches to planning the electricity network. First, the "Holistic Network Design" will be published by National Grid ESO at the end of this month, setting out a blueprint for the onshore and offshore network infrastructure to deliver our 2030 offshore wind ambition. Shortly afterwards, and working closely with Ofgem, we will move to a similar blueprint approach for the whole of the onshore electricity network.

These blueprints will help to plan strategic anticipatory investment in the network in a holistic way, looking at the whole system. They will also address cumulative community and environmental impacts, and by identifying needs upfront, the blueprints will allow planning consent and Ofgem's regulatory approved timescales to be accelerated. We are also revising the national policy statements to recognise the holistic network design and subsequent strategic plans in the planning system.

We envisage, Mr Crabb, that the new independent future system operator—the FSO—will take on the role of the central strategic network



planner once it is established. We are also engaging with Ofgem and the network operators to streamline the process for new connections to the distribution network, which is often cited as a barrier, for example for electric vehicle charging infrastructure. Finally, we will consult later this year on community benefit options to ensure that local communities can benefit from the development of onshore grid infrastructure in their area. More detail will be set out in our electricity network strategic framework, the ENSF, which we expect to publish jointly with Ofgem in the coming months. We will also appoint a networks commissioner to advise on how to accelerate grid delivery.

Q103 **Chair:** Thank you very much, Minister. I am going to bring in my colleague Beth Winter in a moment, but perhaps I could just ask one follow-up question to your statement.

You mention a number of different players who are all involved in the discussion around grid capacity, a number of different frameworks and policy documents. Would you say that there is full alignment among all of those different moving parts about the net zero imperative? Is that written into all of the guidance and approaches that those different players will need to adhere to to deliver the improvements that you are alluding to?

**Greg Hands:** It is an excellent question, Mr Crabb, because it is a complex landscape when it comes to energy networks. There are a lot of players, if you like, within it. One of the purposes of the upcoming energy security Bill is to create the future system operator, which will have a bigger strategic long-term view and long-term role in planning our energy infrastructure.

Having said that, I do think that the current architecture is well aligned on net zero. Obviously, different players have different statutory obligations. We cannot ignore the Ofgem statutory obligation towards best value for consumers. That is an important feature of this landscape. I am sure that you can appreciate as well as anybody who is currently, at a time of elevated energy bills, making sure that there is best value for consumers is also an important part of getting that balance right.

I do not feel that there are different parts of the system working at cross purposes. I think that everyone keenly understands their role. We are creating a bigger strategic overview of the sector, while at the same time I am confident that everybody is aligned on net zero and how to get there. However, that is not the only thing that is relevant in this space.

**Chair:** Thank you very much. I am going to bring in my colleagues now. My plea to my colleagues asking the questions and to you, Minister, answering them is to keep remarks as brief and concise as possible and we will then get through the material.

Q104 **Beth Winter:** Thank you for coming today, Minister. I am interested in exploring the interrelationship between your role and that of Welsh



Government in the development of grid capacity and policy in Wales. How would you see that crossover in terms of your relationship and responsibility?

**Greg Hands:** Thank you, Ms Winter, for that question. Can I start off by stating that we work very well together with the Welsh Government? I know that you had Julie James, my Welsh Government opposite number, giving evidence to you at your last session, I think. She and I work well together on these matters, as indeed the four Governments in the United Kingdom do on these kinds of matters and on things like emissions trading and so on.

Having said that, energy is a reserved matter. Planning consent for Wales is also a reserved matter, so we obviously have to respect the devolution settlement while still working together. There are a number of levers that, of course, the Welsh Government hold, which are important in this area—for example, in things like skills and some of the planning powers—and of influence. The Welsh Government have, just like us, very ambitious net zero targets and they, like us, realise that the network needs to step up in the coming decades as well. I think that we are aligned in our vision and we work well together but, of course, we must always respect the devolution settlement.

Q105 **Beth Winter:** What actions do you feel are available to the Welsh Government within the remit of their energy policy to work with UK Government to improve grid capacity? What mechanisms do they have to work with you?

**Greg Hands:** In the discussions that we have, being aware of areas that are in devolved competence but have an energy need or the ability to produce energy I think is really important, as are understanding the energy needs within Wales and the needs of Welsh industry, which is generally a devolved matter. Where is the read-across from that need towards our ability to generate energy and to distribute it around Great Britain, but in this case specifically Wales? I think that I mentioned particular levers that the Welsh Government have in relation to skills and aspects of the supply chain, particularly the supply chain for some of our newer renewable technologies such as tidal and floating offshore wind. On tidal, I was delighted to see the Welsh Government make a big investment into Morlais, which I visited in Anglesey—Ynys Môn—just last month. There are a lot of things where we are well aligned and work well together.

Q106 **Beth Winter:** On that point, the overwhelming evidence that this Committee has received indicates that the grid capacity is severely constrained in Wales. We received a letter yesterday from the chair of the Senedd Cymru's climate change committee to highlight the findings in its report on renewable energy in Wales. I will quote it: "Wales's grid infrastructure is not fit for purpose. It is holding back renewable energy development. It requires investment, reinforcement and upgrading." I would welcome your thoughts on that, please.



## HOUSE OF COMMONS

**Greg Hands:** It is a very good question and I will say that I disagree with the first part but I agree with the second part. I disagree that it is not fit for purpose at the moment. I think that the grid in Wales is fit for purpose and is doing its job well within the constraints of the current system. We need to understand that electricity demand has been relatively static over the last decade. The grid has been being improved—there has been around £10 billion of investment over the last decade—so it is not as if the grid has not been being improved in that time.

Where I would agree with that assessment, though, is in the need to make the transformation and the need to step up. With a doubling of electricity demand by 2050, to get to net zero and the challenges of having an energy system that is going to be more intermittent—a lot of our energy sources will be more intermittent—how do we manage that system? The energy system of the future will be one of high infrastructure costs and relatively low-cost production, which is the opposite of the hydrocarbon-based system that we have been operating over the last few decades. How do we make that transformation, which is going to need a big increase in transmission capacity and distribution capacity? I totally agree. That is exactly why we are putting through our reforms and the future system operator coming up in the energy security Bill, which I hope you will be supporting because I think it is going to be a really important piece of legislation for Wales.

I do not agree that the current grid is not fit for purpose but I do agree with the scale of the challenge coming up.

Q107 **Beth Winter:** I would encourage you, if you have not already, though, to look at the evidence we have had to date, because the overwhelming evidence from people who have given it, including the Minister, is that it is not fit for purpose, so that contradicts your assessment. What steps are you taking to ensure that grid capacity limitations do not prevent renewable energy development in Wales? You have touched on that, but can you expand?

**Greg Hands:** Yes. A number of key reforms are coming up. I already mentioned the “Holistic Network Design”, which we will be publishing this month, which will show how we create both the offshore and onshore transmission network suitable for getting to 40, now 50, gigawatts of offshore wind. That is an important document. I have already mentioned the future system operator coming up in the energy security Bill, which I hope will be debated in the House of Commons in the coming weeks. We are also reviewing our national policy statements with the ambition that they should be able to progress process times 50% faster within a year or so, making sure that our national policy statements are also aligned. We have the offshore transmission network review, another important piece of work. We already have Europe’s largest offshore wind capacity in this country, but we are going to quadruple that over the course of this decade, so we need to make sure that our network can deal with that amount of extra generation and the extra distribution that will be needed.



## HOUSE OF COMMONS

That is the OTNR, and we also have our electricity transmission network planning review as well within BEIS.

There is a lot of important work going on by us, by National Grid to be the future system operator, and by Ofgem. There is a lot of work going on to make sure that our grid will be fit for the future and to make those key decisions now in terms of getting our grid towards 2050.

**Beth Winter:** No other colleagues have similar questions, so I will pass back to the Chair. Thank you.

Q108 **Chair:** I am going to bring in Ben Lake in a moment, but I want to follow up on your response to Beth Winter.

One of the big emerging opportunities that you are very familiar with, certainly for the west coast of Wales in the Celtic Sea, is floating offshore wind. Developers coming forward with proposals for these floating offshore wind farms are being told that they will not be able to connect to the grid in south Wales because of a lack of capacity, and that they will need to find a grid connection in Devon. Minister, how can you say, therefore, that the grid is fit for purpose? Is that not problematic?

**Greg Hands:** It is an important issue and the Celtic Sea and floating offshore wind is still a relatively nascent technology. We are striving for the UK to be the world's leader in floating offshore wind. I have already mentioned that we have the largest capacity in Europe for fixed-bottom offshore wind. Moving into floating offshore wind is going to be crucial for this country getting to our net zero and our 50 gigawatts overall, of which 5 gigawatts will be floating offshore wind by the year 2030.

How do we get there? Already the "Holistic Network Design", which is coming later this month, will have capacity for 1 gigawatt.

Q109 **Chair:** We will come back to the generalities around floating offshore wind, but just in terms of grid capacity, is that not evidence that there is a problem around constraints of the grid?

**Greg Hands:** That is why we are taking action. The "Holistic Network Design" has Wiltshire, where the first gigawatt of capacity will connect from the Celtic Sea. I might bring in Paul in a moment for some of the detail, but I think that there is a further 3 gigawatts of capacity that the "Holistic Network Design" will also cater for, I think within three years. We are already planning for significant capacity in the Celtic Sea being able to come onshore, and then for further transmission. I might bring Paul in if he wants to flesh out any of the detail there.

**Paul Van Heyningen:** As the Minister said, the "Holistic Network Design" that is being published this month will include a plan for connecting 1 gigawatt of floating offshore wind. That design will be reiterated and another edition will come out next year, and that will take into account the results of the seabed leasing round specifically for the Celtic Sea that is going to be launched later this year. That leasing round



will deliver up to 4 gigawatts of additional floating offshore wind in Wales and the south-west. That should be a very significant proportion of that 5-gigawatt target that the Minister mentioned.

**Chair:** We may come back to floating offshore wind if we have time a bit later.

Q110 **Ben Lake:** Thank you, Minister and Mr Van Heyningen, for joining us this morning. I would like to stick to investment into infrastructure. The energy White Paper, of course, identifies that as one of the Government's priorities. I am interested in some of your thoughts about what sort of investment you envisage and where in Wales the Government might spend. We have talked about the grid in south Wales and north Wales, and I know from your opening remarks you have identified mid Wales as perhaps an area that needs some investment, at least on the transmission side of things. I would be interested to hear a little bit more about your thoughts on that.

**Greg Hands:** Thank you, Mr Lake. Let me start by saying that when it comes to the grid, we are looking really at a Great Britain grid. You and I, I can imagine, might disagree about whether that is the right thing to be doing, but I have to look at it as a Great Britain single electricity market in the same way that the island of Ireland is. I have to look at figures and think about the Great Britain grid. Obviously, within that, there are certain issues. The transmission network from Scotland to England currently needs a lot of strengthening. There is a useful connector—Scotland to Wales—that is coming on as well. There are important things going on.

We do not exactly know how much investment we are going to need by 2050. The figures that I am working on are somewhere between £100 billion to £240 billion in our onshore network by the year 2050 across Great Britain. I think that probably about £100 billion is the size of the current network in terms of today's money investment. We are going to have to at least double the amount of investment going in over the next 30 years.

Obviously, there is a certain amount of flexibility in that target because technologies change. You can look ahead 30 years at what the cost of things will be. If we had been sitting here in 1992 and asking what the cost of different things would be in 2022, there would be a certain amount of flexibility, but that will give you an idea of the magnitude of the Great Britain grid.

In terms of Wales specifically, as I said, we see the transmission network being very strong across north Wales and across south Wales. Mid Wales is principally a distribution network. There are definitely challenges there in building more transmission network in mid Wales if there is going to be more onshore wind. There are definitely challenges in the strength of the transmission network in both south and north. For example, there is a strong existing transmission network coming from Anglesey—Ynys Môn—



but with a new power station at Wylfa in the future, which we hope to have, we will obviously have to see whether the transmission network will be strong enough to take on whatever the new nuclear configuration at Wylfa might be. There are some issues within Wales within the grid, but I have to say that in terms of the overall investment picture I will look at Great Britain numbers.

**Q111 Ruth Jones:** Thank you, Minister, for your time this morning. I must admit that when we hear your words about the grid north and south being very strong, it is not something that resonates with us, because we have heard witnesses state very clearly that the actual grid structure and limitations are hampering the development of renewables onshore and offshore. All these things are not being allowed to happen because of the grid structure. I appreciate that you have an overall UK-wide brief, and that is quite right and proper, but within Wales we are saying that we are at the end of the arm, if you like, so we are missing out here.

One of the things that we would question is that the construction of a flexible grid was identified as one of the essential planks in the net zero strategy, but it is not even mentioned in the Government's 10-point plan for a green industrial revolution. I just wonder why.

**Greg Hands:** Let me try to deal with that, Ms Jones. First of all, I still disagree with the starting premise that the current grid is not fit for purpose and has somehow hampered the rollout of renewables. However, I do agree that we have a challenge going forward and I have laid out the measures that we are taking towards that. I certainly do not agree with the idea that Wales is missing out. The transmission network in Wales is very good and strong, and Wales is making a big contribution in terms of our current renewables. It will make an even bigger contribution in terms of future renewable power sources. We need to make sure that the grid is able to accommodate that, which is why, for example, Paul and I laid out some of the measures we are taking with reference to the Celtic Sea.

In terms of the flexible grid, the Prime Minister's 10-point plan for a green industrial revolution came before the net zero strategy—a year before—so that would explain why it was in the net zero strategy. It was not dropped. It was put into the net zero strategy, which came a year after the Prime Minister's 10-point plan.

**Q112 Ruth Jones:** You have talked a lot about things such as your priorities and your consultations, and you are talking about 2030. That is a long way away when we are trying to get to net zero as quickly as possible. I wondered what the priority was in bringing the net zero requirements to the Welsh grid, if you like. I know that you are enhancing the overall grid across the UK, but what priority do you see for the Welsh grid?

**Greg Hands:** Again, I am looking at the Great Britain grid, while recognising that there are specific needs and specific capabilities within Wales in terms of renewable generation, and Welsh population centres and Welsh industry in being able to use a lot of that energy.





I have outlined where the reforms are taking place. In terms of individual places or where the individual investment goes, I will bring in Paul in a moment, but that is where we see principally the role of currently the National Grid ESO, the future system operator, Ofgem and others. I am not in the business as Minister of saying, "Here I need to increase the strength of this power line across this bit of Wales or this part of GB." That is not my role. My role is to set the policy framework to make sure that the right funding is going in there, that we attract the investment, and that we make the right policy choices. If your question is more about individual priorities within Wales, I might just bring in Paul.

**Paul Van Heyningen:** The strategic planning that was mentioned is key to this. Thinking holistically about the needs of the network across GB, including Wales, and having that upfront guidance on where reinforcement is needed through strategic plans is key.

The other thing that the Minister alluded to is Ofgem's role in this and its price control process whereby it regulates the electricity network. We have a new price control process for the transmission network, which started in 2021. That has a number of flexibilities to allow for net zero investment. Then for the distribution network, the reinforcement of which is crucial, particularly in mid Wales, as the Minister said, Ofgem is currently developing its new price control process for the two distribution network operators in Wales. You have Western Power Distribution in the south and ScottishPower Electricity Networks in the north. They have put forward business plans with very significant investment, which Ofgem is currently looking at. For example, I think that Western Power Distribution has plans for £6.7 billion of investment in the distribution network, a significant chunk of which is in Wales. There is a recognition of the very significant investment needed for things like EV charging infrastructure and so on.

**Greg Hands:** If I could just add to that, I do have those figures. Western Power Distribution, which is in the southern part of Wales—south Wales—thinks that about 1.4 extra gigawatts will be needed for somewhere between 140,000 and 580,000 heatpumps, and somewhere between half a million and 1 million electric vehicles by 2035, so an extra 1.4 gigawatts of distribution network. ScottishPower in the north thinks that it will need to rise from 2.3 gigawatts to 3 gigawatts to cope with low carbon technology increasing demand, which is roughly its base point at the moment. There you are projecting a doubling of the need for distribution network in north Wales, particularly due to low carbon technologies.

Q113 **Ruth Jones:** I think that the Committee has heard very clearly from other witnesses as well the demand that will be there in the future, but Peter Bingham, the chief engineer at Ofgem, noted that the renewable electricity generation sites cannot be connected probably until 2029. We are talking a long wait here. I appreciate that you are talking about consultations, but action would be helpful here. How do you see the



action going forward?

**Greg Hands:** That is one of the key challenges is making sure that we get that balance right between Ofgem being able to anticipate where generation is going to come while still keeping its need to protect consumers. You have to be careful not to overburden consumers with too much network that ends up not being needed, if you follow me. That is part of Ofgem's role of protecting consumers. We are going to be strengthening the role of Ofgem in having anticipatory powers when it comes to grid connection. We think that is the right thing to do, but it would not be right for us simply to ask Ofgem to assume any project that is being talked about today is ultimately going to come on to the grid within the coming year. I do not think that that would be the right way of defending consumers today from those costs.

Q114 **Geraint Davies:** If I can follow on from that point, there is enormous opportunity in Wales for renewable power generation on and offshore. We have heard evidence about the constraints of the grid and you have just told us about the responsibility of Ofgem to protect the consumer from almost too much energy. Can I follow up the question I asked you yesterday about whether we should be using renewable energy off peak, which is not generating any energy for the grid because it is not needed, to feed in to produce hydrogen that can either be stored in canisters as used in rural communities, or put directly into our gas pipes—up to 40% was the case with coal gas—so that the carbon footprint of domestic gas consumption is reduced by renewable energy that is not going into the grid?

**Greg Hands:** Thanks, Mr Davies; it is a great question. Hydrogen is absolutely part of the future here. Basically, when it comes to what might be called excess renewable energy—it seems a bit odd to say “excess” renewable energy; it is renewable energy at times when the demand is not there to consume it all—what do you do with it? There are different ways of approaching that. You can manage your demand. You can manage your ways of incentivising people to charge their electric vehicles on windy nights or sunny days—that kind of thing.

The second key area that you have just mentioned is the creation of hydrogen, and this is something where the UK is going to be a leader. We set out in the British energy security strategy a target of 10 gigawatts of hydrogen, half of which will be produced through electrolytic or green hydrogen. At the end of last year I was in Scotland, rather than Wales, and I was at the Whitelee wind farm just south of Glasgow, where the UK Government have just invested about £10 million with ScottishPower. The Whitelee wind farm, by the way, is Europe's second largest onshore wind farm. Converting in this case what might be called excess wind power into hydrogen, which is going to go directly into powering Glasgow's buses and dustcarts going forward, is a really good use of hydrogen going forward from that excess renewable power.

Q115 **Geraint Davies:** To follow that on then, if we are agreeing that Wales is



capable of producing excess energy from renewables into the grid, given the constraints we have heard about, but also into hydrogen, for instance, through our gas pipes and for transport as you have just mentioned, should that energy and that value be kept in Wales to lower Welsh energy costs or to accelerate net zero, or should it be exported to England? If it is exported, should some of that value come back to the Welsh people because it is a Welsh-produced resource?

**Greg Hands:** Our energy markets are a Great British enterprise. We are all part of Great Britain, bearing in mind that Northern Ireland is a little bit different. I have been in many Government Departments, and Northern Ireland, when it comes to energy, is a little bit different to Wales and Scotland. Like you, Mr Davies, I am a great unionist and I believe in the value and power of Great Britain being able to deliver a great many things here.

Wales is undoubtedly a fantastic place for producing renewable energy, as it was in the past a fantastic place for producing hydrocarbon energy for the whole of the country. I am not really seeing it. What I do see is that the benefits for Wales in terms of jobs, prospects, and the ability to produce green jobs in Wales through renewable energy is incredibly important. I see the benefits to Wales of being a big renewable energy producer and of being able to use renewable energy within Wales, and/or to export it to England or anywhere else, as being a key, powerful gain for Wales.

Q116 **Geraint Davies:** There is a feeling in Wales, as we had with the history of mining, where we have ended up with all these slag heaps and the big argument about who is going to sort them out, that if we are producing energy in Wales—renewable energy in this case—we should keep a proportion of that, particularly at a time when Wales has agreed to have onshore wind farms and England will not. Have you spoken to the Welsh Government about that balance and how we can keep at least a share of our excess added value in any green energy production to incentivise more green energy production where it can be made?

**Greg Hands:** There are different parts to that question, Mr Davies. First of all, Wales is also benefiting from a lot of energy projects going on in the rest of the country. For example, the number of Welsh jobs being created through Hinkley Point C, which is in England, is not something to be underestimated. We hope that with the new nuclear power station at Wylfa that situation might be reversed, with the ability for Wylfa to generate jobs in England as well as in Wales. I do see a lot of the Union benefits.

In terms of getting local communities on side, that is something that increasingly is our focus. As we build more infrastructure, we need to make sure that local communities remain on side. That could be anything from the connections to offshore wind when they come onshore. It could be in relation to local involvement in onshore wind developments, solar



and all of these things. We need to make sure that the local community is also on side.

Q117 **Geraint Davies:** Does that mean that they may face lower energy costs in exchange for having wind farms, lagoons or whatever it might happen to be? Will that be something that you will factor in, rather than just producing wind farms everywhere, with all the energy going over to England?

**Greg Hands:** We have said in the British energy security strategy that when creating local energy partnerships, for example for onshore wind—in this case for England because England has a specific issue around onshore wind—the local energy partnerships could have the ability to deliver lower local pricing, which will be subject to consultation. Lower local pricing is certainly one of the things that is in the Government's consideration going forward to keep local communities on board where there is any difficulty.

Q118 **Geraint Davies:** Finally, on a different subject, the Climate Change Minister in the Welsh Government, Julie James, pointed out that in her view if the grid was planned strategically in terms of new entrants coming to add energy, we would not have a situation that is market-led, whereby new developers coming in would have to pay higher upfront costs. She, therefore, contended that it would be better, given that you have a wider policy role across the UK, that that role of strategic planning to have a lower cost or averaged cost for new entrants to the energy market be done and also handed over to the Welsh Government because they could focus more clearly on it.

**Greg Hands:** I would need to look more precisely. As I say, Julie and I talk quite often. I did look at the evidence she gave to your Committee and I will maybe have to look slightly more precisely at what she said on that.

One thing that we are doing, though, partly in an effort to speed things up, and we have stated this again in the British energy security strategy, is that we will exempt certain strategic network projects from competition to provide more short-term certainty and acceleration going forward. We will be publishing details on that exemption from competition in the forthcoming electricity network strategic framework later this year. We do see a role in the short term, perhaps in very specific areas, to suspend some of the competition elements within that.

Q119 **Geraint Davies:** The basic point, I guess, is that the Welsh Government want the encouragement of investors coming forward, and the concern is that the first ones that step forward face the highest upfront costs. Therefore, this deters rapid and equitable investment opportunities and holds back our net zero renewable energy ambition.

**Greg Hands:** This is familiar across a whole range of aspects of investment. The first investors will often feel that they might be better off



## HOUSE OF COMMONS

waiting and they will get more clarity later on. I might just bring in Paul, though.

**Geraint Davies:** I just wanted to know whether you want a planning approach rather than market failure.

**Paul Van Heyningen:** On the issue specifically of the first mover and the upfront cost, that is a known issue to do with the way the regime of connecting to the grid is managed. The current situation is that often where a network upgrade is required to allow a connection of, say, a new solar farm or a wind farm to the distribution network, the customer has to pay for that reinforcement. Ofgem has recently made a change to that approach whereby some of those additional reinforcement costs will instead be socialised and put on the bill payer in general rather than the connecting customer. That should significantly reduce in a lot of cases that issue of the first mover and the upfront cost.

Q120 **Chair:** Can I just jump in there? Is that the so-called anticipatory investment that the Minister referred to earlier or are we mixing two different issues?

**Paul Van Heyningen:** I think that they are slightly separate issues. This is about the way that costs are apportioned and the distribution between the customer who is connecting, whether it is an EV charging hub or a wind farm, and what they have to pay compared to what is put on the bills. Obviously, Ofgem has to think carefully about the right balance between those two things. Anticipatory investment is more about investing ahead of need rather than waiting until there is an absolutely certain new connection or new demand, saying that we are almost certain we will need this demand in this area and, therefore, we are going to build ahead of need and we are going to over-reinforce the cabling now because we know that we are going to need it in the future. It is cheaper and more effective to do that up front.

Q121 **Chair:** That is the area where Julie James, the Minister from Welsh Government, was describing market failure and where she felt that there needs to be a much more planned approach. I do not know whether you have had a chance to see those comments from the Welsh Minister. Is that broadly an approach that the UK Government concurs with, that a market-based approach for securing timely investment in these new connections is not working and it needs a much more planned—

**Greg Hands:** No, I don't think we do agree with that. We want to have a market-based approach but, if you like, with a longer-term perspective. That is why we are bringing in the future system operator and all of the other reforms that I mentioned, is to have a more strategic overview, recognising that our challenge is delivering a lot more infrastructure over the last 30 years simply because electricity demand and electricity generation are both going to grow, so you do need much more infrastructure. I do not see that as a general move away from a market-based approach, which we think is fundamentally the right approach, but



## HOUSE OF COMMONS

it has Government oversight and the future system operator oversight to make sure that we have that long-term view—that is also from Ofgem—written into the system.

Q122 **Chair:** Implicit in what you are saying is higher costs among bill payers.

**Paul Van Heyningen:** There will be additional costs, as the Minister said at the start, to invest in the network and make it fit for net zero and for energy security. Those will ultimately be paid by consumers of electricity. It is worth also bearing in mind, as the Minister said, that electricity demand will double by 2050, so although overall costs will increase, the unit costs, given the total amount of electricity being generated and consumed—we are going to be publishing some analysis on this in due course—may well not increase because your total amount of electricity production is increasing.

**Greg Hands:** Don't forget, of course—

**Geraint Davies:** So we are clear on this question—

**Chair:** Geraint, could you wrap up shortly and then I will bring in Ben?

Q123 **Geraint Davies:** I will, yes. So that we are clear on this, what has basically been said is that if there is a number of investors for new energy coming in, the concern is that the first one in pays higher costs. I know that Paul said those costs can subsequently be distributed among those investors' consumers in the future, but that really is not good enough. The idea is that the overall benefit is for all investors and, therefore, it should be shared by all investors, be they passed on to all their consumers, in a planned rather than a market-atomised way. Will you be looking at that again in those terms, Minister, in a planned way rather than a "first come, first served, but they have to pay most of the cost" way?

**Greg Hands:** In terms of individual investors and the investor sequence, I think that is probably a job not so much for the Government but for those who are actually delivering the system, which will be the ESO, the FSO in the future, Ofgem and the companies. My job is to set the framework and make sure the incentives are in place to bring in that investment.

Q124 **Geraint Davies:** You will not let the Welsh Government get on with it and deliver that in the way I have said?

**Greg Hands:** I am always willing and my door is always open to speak to Julie.

**Geraint Davies:** I will leave it at that, thanks.

**Chair:** I think that we will leave that discussion there, but it is probably worth us going back and looking at her evidence in detail and perhaps, Minister, you could do the same. There is obviously a difference of perspective there.



Q125 **Ben Lake:** I am keen to stick to anticipatory investment, but perhaps to explore a bit more about the potential role of the future systems operator and how you see that function operating. We received evidence from the National Grid ESO that expressed support for anticipatory investment but then also pointed out that the investment can only be made when a clear pipeline of projects has been established. We then had a number of potential developers tell us that they are hesitant sometimes to put forward proposals because of uncertainty as to whether or not the capacity will be there for them. We are in danger somewhat of a chicken and egg dilemma. I am very interested in the future systems operator role because I can see that as a potential way of cutting the Gordian knot, if you like.

With regards to the FSO, will that office have any way of recommending changes or proposals to amend Ofgem regulations or is it something that, rather than introduce or propose regulatory improvements, will just scope out where potential generation sites will be in the future or are likely to be in the future and then try to match it up with where we expect increased demand to be located geographically as well? Is that the function?

**Greg Hands:** Thank you, Mr Lake. We have not published the Bill yet in terms of the future system operator, so I am slightly restricted in what I can say precisely about the role of the FSO in this. I have outlined what I think is the strategic role of the FSO, effectively replacing the National Grid ESO in these things.

In terms of your question about investment and the need for investors to have a greater degree of certainty, we broadly agree with that and that is one of the reasons we are trying to accelerate the delivery of the transmission infrastructure network. Currently, it can take anything from 10 to 14 years to create a big piece of transmission infrastructure, which can be longer than the amount of time that it takes to create and bring on stream the generation project. We are looking to accelerate those times as we go forward. That will also be a key role of our networks champion who we will also be announcing imminently. He or she will look at how we accelerate those times and those processes.

Q126 **Ben Lake:** In your opening statement you also mentioned the holistic network designs and the blueprints that emanate from that process. If you are able to tell us, will these blueprints cover periods of 20, 30, 50 years, or will they be more like Network Rail control periods where they have a 10-year window?

**Greg Hands:** The HND itself is for a period of 2030, a very specific time. At that point, the exam question for the HND was how we would get 40 gigawatts of offshore wind transmitted into the network, and now the ambition is 50 gigawatts. HND was a specific 2030 project. I imagine in the future that this Government and future Governments will want to look at similar processes: how do we get the network to have sufficient capacity for these challenges of the future? Beyond our current 2030



## HOUSE OF COMMONS

target, there is a lot of work to be done between 2030 and 2050 as well. I can see future HNDs as well.

Q127 **Ben Lake:** Might future HNDs fall under the FSO, perhaps? In terms of the grid construction in rural areas, do you think the planning system supports the development and construction of new grid infrastructure in Wales, particularly in rural areas, or do you foresee it containing some problems that need to be ironed out?

**Greg Hands:** I think the planning system needs to be streamlined and improved. That is why we are taking the action we are, for example the national policy statements. I gave evidence to the BEIS Select Committee earlier this year on how we are changing the national infrastructure policy statements when it comes to energy, with the ambition that we should be able to progress the process about 50% faster within a year. We think the planning needs to be streamlined and accelerated. We are talking extensively with DLUHC to make sure that that will be the case, and we can accelerate on planning. Paul may want to add something on the planning side on specific measures.

**Paul Van Heyningen:** I think there is a strong link to the holistic network design in the strategic planning as well, as the Minister said, by identifying that need up front. That could significantly help to speed up the planning consenting process, and that is why we will revise the national policy statements to ensure decision makers can take account of those strategic plans and blueprints in their decision making.

**Ben Lake:** Finally, a comment more than anything: I know some work has been undertaken in Wales on energy mapping. I am sure those responsible for it will be keen to contribute to any future planning the FSO or others will do.

Q128 **Chair:** Can I come back to offshore wind? In the British energy security strategy paper, why do none of the proposals for reducing processing times for offshore wind farms directly address the delays caused by developers needing to construct grid infrastructure? Is there a gap therein?

**Greg Hands:** A very good question. We are trying to address that separately with things like the FSO and other changes going forward. A lot of people drew attention to the British energy security strategy and that it is essentially a big statement of intent, but it was not a comprehensive thing, so the fact that something was omitted from it should not necessarily mean it is not happening.

Q129 **Chair:** That is helpful, thank you. Witnesses as part of our inquiry have highlighted the continuing need for grid reinforcement to facilitate the introduction of multi-link hubs or multi-purpose interconnects, as they are known, for offshore developments. When will the Government deliver the necessary grid reinforcements to facilitate these multi-link hubs?





**Greg Hands:** I will bring in Paul in a second, but this is all part of the role of the offshore transmission network review, launched in 2020 by Kwasi Kwateng when he was doing this job. It looks at offshore wind and how you most cost-effectively seek to minimise the environmental impact locally. Whether the answer there is through different hubs, certainly the answer will be to reduce the number of points that electricity comes onshore. Whether the answer will be one of these rings or through concentration of infrastructure at particular points, bringing the infrastructure closer to the point of need, those will be questions being looked at by the offshore transmission network review, which will report this year.

Q130 **Chair:** Is it a fair criticism of that offshore transmission review that it is overly focused on the east coast offshore opportunities and has less focus on the western seaboard, including Wales?

**Greg Hands:** I do not think it would be fair. There is an issue in East Anglia at the moment, I will be frank with you, in the amount of infrastructure that has been or is being built, or being consented to, to deal with the big increase. Local opinion in East Anglia is very much in favour of this increase in offshore wind and part of a big contribution towards net zero.

There have been issues there with sites where what is viewed as being unsightly infrastructure comes onshore in places that are important for tourism and agriculture. The read-across to part of Wales could be there in the way that it has not been as big an issue in places like Humberside or Teesside that are also very close to fixed-bottom offshore wind infrastructure. But I am not aware of there being specific problems in Wales where offshore wind infrastructure and generation comes onshore, which I imagine will currently be mainly in north Wales.

I am not aware of that being as big an issue there, but the idea of the OTNR is to look at how we scale up. The situation is that we have 11.4 gigawatts of offshore wind generation, the biggest in Europe, and we have to get to 50 gigawatts as our ambition by 2030, so not only are talking about current infrastructure but the quadrupling. How do you manage that infrastructure, particularly when it comes onshore and how it is transmitted beyond then? Paul may add something in terms of OTNR and why specifically it is an East Anglia focus.

**Paul Van Heyningen:** I do not think it is an East Anglia focus. The OTNR is split into several time horizons. It is an early opportunities workstream, and that perhaps does have an East Anglia focus, because it is for projects that already have firm network connection agreements and they tend to be ones in that location. But the pathway to 2030—the slightly longer scale timeline where the holistic network design is focused—will have less of the East Anglia projects because that is for projects that are in the seabed leasing process but do not yet have a grid connection, because there is more flexibility there to change the way the grid is planned, and that will include Wales, the east coast a bit further north,



## HOUSE OF COMMONS

and Scotland as well. It definitely covers the whole of the waters around Great Britain.

Q131 **Chair:** On the point about Scotland we mentioned just now and the comment you made earlier about your relationship with Welsh Government when it comes to grid capacity, is it a similar relationship with the Scottish Government or are there different powers there? Are there similar issues at play there for the ScotWind developments, for example?

**Greg Hands:** Scotland is a little bit different because the planning is devolved in Scotland, so when it comes to the planning regime, particularly for connections coming onshore and onshore transmission, those need the Scottish Government buying into that, which to be fair, they do. We have seen with the big increase in renewables in Scotland that the Scottish Government has been forward-looking in this space.

Q132 **Beth Winter:** I am interested in community benefits, and you referred to that in your opening statement. You mentioned a consultation to be launched later this year possibly. Based on your comments about the market approach, I take it that that will result in increased costs for consumers, rather than a reduction in costs, so I would question the continuation of that approach.

Community Energy Wales has submitted evidence to us stating: "The role of community energy, low carbon transition, the development of local economy is being restricted by excessive costs and a lack of appropriately tailored regulatory processes." In the energy White Paper, the UK Government have committed to acting quickly to take the necessary steps to mitigate situations in which communities are being impacted by grid connection infrastructure.

Do you agree with the findings of Community Energy Wales and what steps will you take to ensure grid connection infrastructure is not limiting local development in community projects? I know you have this consultation coming, but what has been done up to now, and can you give a bit more detail on what will happen?

**Greg Hands:** First, to try to break this down a little bit, the Government are very supportive of community energy. We did not however support the Local Electricity Bill, a private Member's Bill, in the last Parliament, but we are very supportive of community energy. As you rightly outlined, we stated that in the Energy White Paper. I do not recognise there being specific difficulties around the grid when it comes to community energy. I might bring Paul in if he is familiar with this as an issue. I am happy to engage with Community Energy Wales, on this but I am not aware of the grid as being a specific obstacle.

**Paul Van Heyningen:** As the Minister said previously, there is thinking going on around how local communities can work to give their support for onshore wind and how developers will be able to respond quickly to that.



We will consult on that in the future. Also, in the energy security strategy, we talked about potentially consulting on options to give benefit to communities for hosting grid infrastructure, and it is only right that they can participate and benefit from development in their area. Policy thinking is still going on the details.

Q133 **Beth Winter:** Time frames.

**Paul Van Heyningen:** We said we would consult this year.

**Greg Hands:** There are two separate issues there. First, can Community Energy tap into the grid and does it have the infrastructure to do so? Secondly, should communities—and how should they—be compensated for hosting grid infrastructure? They are two related issues, but not quite the same issue. On the second issue, as we said in the British energy security report, and as Paul just said, there is the ability for us to think about how we design schemes that will give some benefit back to local communities for hosting grid infrastructure.

Q134 **Beth Winter:** That is in the process of being investigated. Is that what you are saying?

**Greg Hands:** That would be subject to the consultation later this year. Paul?

**Paul Van Heyningen:** Yes.

Q135 **Beth Winter:** My other question is about the Crown Estate. When the Minister for Climate Change gave evidence last week, she said: "It is completely outrageous that the Crown Estate is devolved in Scotland and not in Wales." There is approximately £550 million there. What are your views on that?

**Greg Hands:** I have read that bit of evidence carefully, and I think Julie James said she had a very good relationship with the Crown Estate in Wales, which is not devolved there, although it is in Scotland. From reading her evidence, she did not see there was a problem with the Crown Estate, and I think the Crown Estate does a really good job overall, as does the Crown Estate Scotland. I think the Crown Estate for the rest of the country, particularly in the way it is approaching the Celtic Sea at the moment, is being very front-footed and forward in terms of its work with the sector and making sure the Celtic Sea is ready. I do not see there being an issue and Julie James herself said she had a good working relationship and did not have a specific problem.

Q136 **Beth Winter:** She said there was a good working relationship, but she commented on the administration of the resources, saying that it should be devolved and decided by the Welsh Government, as happens in Scotland, so there is a distinction there. She says the relationship is positive but, in terms of the distribution and how the funds are spent, that should be decided by the devolved Government.



## HOUSE OF COMMONS

**Greg Hands:** I can imagine, Chair, that you have had a number of discussions or inquiries over the years on the devolution settlement. I do not think it would be appropriate for me to comment on the devolution settlement other than to say I am not aware of any plans to devolve the Crown Estate in Wales.

Q137 **Beth Winter:** In terms of our discussion about renewable energy and the ability of Wales to develop the renewable energy that is required, so far as the Minister is concerned, that is an opportunity for Wales to be able to—

**Greg Hands:** Perhaps someone can point out to me what the problem is here. I see the Crown Estate delivering right the way across the country. I am not aware of there being an issue in the Crown Estate and what could be changed or improved by the status of the Crown Estate in Wales being altered. I have not seen that argument.

Q138 **Beth Winter:** Maybe we need to look back at the evidence.

A final comment from me: while I was listening to you speaking, I have been reading and referring to the Senedd's climate change committee's report on renewable energy in Wales, which was only published in the last couple of days. You may not have seen it yet. Its evidence severely contradicts some of what you have said today about grid capacity in Wales, and there are concerns that the UK Government are unaware of the severity of the grid issues that are being experienced. I know we have covered this, but I would encourage you to look at that report and the evidence contained within it from businesses in Wales.

**Greg Hands:** Thank you. I am very happy to look at the report and I am sure my officials are already studying it. It is important to draw the distinction between the grid being fit for purpose today, which I strongly believe it is, and whether the grid will be fit for purpose in the run-up to 2050, which is exactly what we are working on with some of the key reforms we have made and are coming up. There are two separate questions. Is it fit for purpose today? Absolutely. Will it be fit for purpose tomorrow? That is what we are working on.

Q139 **Beth Winter:** The Senedd committee report clearly states that it is not currently fit for purpose and has not been for a long period, and the evidence is there. I will finish there. Thank you.

**Greg Hands:** I am happy to look at the report, but I just do not agree with that conclusion.

**Beth Winter:** That is fine.

**Chair:** We will move the discussion on. Geraint, you wanted a very brief supplementary.

Q140 **Geraint Davies:** Minister, you asked what the argument is for devolving the Crown Estate, in essence? The Welsh Government are saying that if you want fast, rapid and effective delivery of renewable energy, they



## HOUSE OF COMMONS

could do it more quickly, as they do in Scotland, alongside, as we said earlier, a planning regime that allowed investors to come to the table and link up with the grid more quickly. I think we all want that to happen, so should you not press the Government to allow that devolution to deliver all our ambitions on renewables?

**Greg Hands:** First, it is not my role to mess around with the devolution settlement. Secondly, Crown Estate Scotland does a great job and ScotWind was a great thing, strongly supported by the UK Government as well. I have not seen any evidence that devolution of the Crown Estate has speeded up that process. That is a separate thing. Having said that, the Crown Estate overall and Crown Estate Scotland do great jobs. I have already pointed out how they are doing a great job in the Celtic Sea, but I do not think they are not doing a good job, which would mean somebody should question whether it should be devolved or not.

**Chair:** I do not think we will get any further on that.

**Geraint Davies:** A celebration of the Platinum Jubilee—devolve it.

Q141 **Ben Lake:** Minister, can I ask a question that relates to the future grid and a very specific aspect as regards electric vehicles? You might not be surprised, but I have a particular interest in rural areas, as I represent Ceredigion. One challenge that has already been identified by many relevant authorities is how we ensure that rural communities—and any other areas for that matter—that have a weaker transmission distribution network can transition to electric vehicles? If I can throw in a curve ball, is it the case that rather than there being a wholesale transition to electric vehicles, we are about to start talking about hydrogen for more of the heavy goods vehicles, farming machinery and what have you as an alternative, perhaps with that being developed side by side with more electric vehicle use in those areas where it is more viable to roll out?

**Greg Hands:** If I take that in two parts. First, on electric vehicles, both the two DNOs—the distribution network operators—for Wales, Western Power and Scottish Power, exhibited a high level of ambition for EV roll-out in Wales within their business plan for the upcoming price control period. I have mentioned the figures they see in terms of the need for investment to support electric vehicle roll-out in Wales.

In England, the Government—there are Barnett consequential for this—have announced both a £950 million rapid-charging fund and a £450 million local EV infrastructure fund to operate within England, but with Barnett consequential for Wales. That is the priority given by this Government to electric vehicle infrastructure going forward. The Government treat it as a strong priority, but the distribution network operators in Wales also see it as a strong priority, and for heat pumps as well.

To your question about hydrogen, it is also still relatively nascent. What hydrogen will be used for is an area of active debate around the world.



## HOUSE OF COMMONS

With some areas, you can see a greater degree of certainty than others. There is a very strong degree of certainty it will be needed for maritime transportation. There is a bigger degree of certainty it will be needed for HGVs and large vehicles than for cars, and a bigger degree of certainty that it will be used for industrial decarbonisation rather than space heating. All these things are still being explored.

A few weeks ago, I was at the Global Hydrogen Summit, where all the biggest likely hydrogen consumers, importers and exporters were gathered together, trying to work out a global standard for what constitutes green hydrogen. If you want to export green hydrogen, you need your importer to be able to say that it is green hydrogen. They were trying to bash out what they published. The UK has its own standard on green hydrogen, which we published

My point is that a lot of these things are about keeping our ability to produce more hydrogen going forward, so we need to make sure the supply side will be there. That is why we have doubled the ambition in the British energy security strategy from 5 gigawatts to 10 gigawatts, of which more than half will come from green hydrogen. Our ability to produce hydrogen is important within that. It is too early at the moment to say exactly where the biggest part of the demand for hydrogen is likely to come from.

We can be reasonably certain that large vehicles and maritime will be some of the shorter-term demands for hydrogen. Mr Davies's point earlier about a blending into the gas grid is also a live question. What is the applicability and desirability of hydrogen blended into the gas grid? A lot of these questions are still in development, but I am clear that as the debate on demand develops here, and as we start to learn more and we see technologies evolve, we should park that for the moment and concentrate on making sure we have more hydrogen supply.

Under any scenario—and, as the Climate Change Committee has said, under any likely net zero scenario—I think that hydrogen will play a big role. Making sure we have a supply of hydrogen going forward is a very pressing issue for us at the moment and that is what we are working on very extensively.

**Q142 Chair:** We have spent a fair bit of time this morning talking about future ambitions and aspirations, and how we maximise them. Given you are in front of us and you have a wide-ranging brief as Minister for Energy, can I raise another issue with you—not directly related to grid capacity but it is very pressing and immediate? It relates to natural gas supply, and is linked to current geopolitical events. How tight are you anticipating UK gas supply to be in this forthcoming winter?

**Greg Hands:** I will be quite frank. We do not have gas supply issues in this country; we have a price issue, which we are all experiencing and seeing. We are all seeing the effect of that from our constituents through



## HOUSE OF COMMONS

to the wider political debate and the Government's package of support announced by the Chancellor the week before last.

When it comes to supply, the UK is not immune from high prices, which are driven by the global recovery from the pandemic, the Russian invasion of Ukraine, and the removal and disruption of supply from those sources that inevitably follow. We do not have a supply issue in my view. The price issue is there, but going back to supply, we benefit from good security of supply in this country. Some 50% of our gas supply—this has been the case over the last decade or so—comes from the UK continental shelf. That is a very good thing, and not only for our security supply because it is better for emissions. UKCS gas emissions are much lower than imported gas. Some 30% comes from Norway, and about 20% from either interconnectors or LNG imported from other sources.

**Q143 Chair:** It is the interconnector that may be unable to supply gas to us this winter. I read recently that one of the worst-case scenarios your Department is planning for foresees the potential for gas being rationed, effectively, for larger industry. Is that correct?

**Greg Hands:** No. We have no plans or proposals on any rationing. We are confident of our security of supply. Interconnectors are important, particularly the one to Norway, which provides 30% of our gas, but I have no reason to doubt Norway's ability to keep delivering us that gas. We talk regularly with Norway. We have an outstanding relationship with the Norwegian Government and with all points of the Norwegian energy system. I do not have any doubts at all about that 30%. The connectors to Belgium and the Netherlands are much smaller—75 million cubic metres each day. That is a relatively smaller amount of interconnection. With the 50% from the UK continental shelf and the 30% from Norway, I am absolutely confident of the security of that supply, and the rest is effectively bought on the world market.

**Q144 Chair:** The relevance to Wales is that Wales hosts much of the UK's liquified natural gas import infrastructure at the port of Milford Haven, one of the UK's most important energy ports. Do you foresee a need for us to secure more LNG cargoes in the months ahead to supply us for next winter, given that we are committed to stopping Russian imports of LNG into this country?

**Greg Hands:** We import very small amounts of gas from Russia, typically 3% to 4%, and it is certainly down at the moment. We do not have an issue in the way that, say, Germany does or large parts of central and eastern Europe do in terms of dependency on Russian gas. However, as the UK continental shelf declines over the coming decades, one would expect to see the proportion of gas that comes from LNG for this country's use rising. Whether that rises overall as demand for gas will fall is an interesting question for debate within the gas market. Consumption of gas in this country will decline. LNG's proportion of it will increase at the same time.



## HOUSE OF COMMONS

I am not in the market to actively go out seeking an increase in LNG imports at a time when LNG is expensive and the embedded emissions within LNG are much bigger than UK continental shelf or Norwegian gas. The embedded emissions are 2.5 times as much from LNG. I think there could be a role for the UK through Milford Haven becoming an LNG supplier or gas supplier to continental Europe through the Belgium and Netherlands interconnectors. That is certainly something we would be keen to work with our European partners on. I also do a little bit of energy diplomacy in my spare time, Mr Crabb. Making sure that the UK can help particularly our central and eastern European allies as much as we reasonably can, I think, is going to be a big part of it.

I would say with short-term LNG that if it enables us to assist our neighbours and increases our energy security, yes, but I would not want to see us making a big move into becoming a much bigger LNG importer because it is both expensive and more polluting.

**Chair:** That is very clear, thank you.

Q145 **Ruth Jones:** Minister, you have very clearly stated that your role is in strategic intent and direction, and looking at policy formation. We have talked a lot about renewables today—offshore and onshore wind. Obviously solar is a given. We have not talked much about tidal, so what are your thoughts, in terms of going forward and achieving net zero, about looking at lagoons and barrages? Obviously I have an interest in the Severn Barrage.

**Greg Hands:** Thank you, Ms Jones. I am incredibly excited by tidal. I was up in Anglesey—Ynys Môn—which I keep mentioning, but that was my most recent visit. I visited multiple energy sites on the island last month. I saw Minesto and I saw the Morlais development. It was very exciting to see Wales right at the forefront of tidal. It is one of the three or four best sites in the UK along with the Isle of Wight, and along with the Pentland Firth between the north of Scotland and Orkney. Around Anglesey, in particular, I think there is a fantastic ability for tidal, which I think is great.

What are we doing about it? We have invested overall, I think, about £115 million as a Government over the last couple of decades into tidal. We have set a dedicated pot for the first time in our current contracts for difference auction—allocation round 4—of £20 million for tidal energy projects. I would expect a lot of the winning projects, or some of them at least, to be based in Wales as a key part of our tidal resources and tidal companies going forward. That is a live auction at the moment.

Q146 **Ruth Jones:** In terms of going forward with the use of tidal, actually implementing it and getting it involved in the grid—the actual production of tidal energy—when do you see that happening?

**Greg Hands:** Tidal is already happening in terms of it coming on scale. The challenge for tidal is being able to scale up at a good price. I am





confident in the industry's ability to do that. I was struck when I was at Minesto by how it has moved its technology on to be able to manufacture. I was shown what is being done in Anglesey and in the Faroe Islands. I did that on screen, I have to say—I did not go to the Faroe Islands, unfortunately. The ability to scale up is going to be one of the key challenges of tidal going forward.

Tidal is a great thing. I mentioned earlier that one of the challenges for the electricity system, if you think of where we will be in 2050, will be renewables—a massive part. It will be by far and away the biggest part of our electricity system. Nuclear will play a big role. We think that by 2050 24 gigawatts will come from nuclear.

The way I see it, you want diversity within your renewables. I see energy, in terms of generation, with a portfolio manager's approach. You want to have really strong performers, but you want to have a diverse set of performers that are not necessarily strongly correlated with each other—a classic portfolio management approach. Here there will be big wind resources. There will be potentially 70 gigawatts of solar. We are talking about 50 gigawatts of offshore wind by 2030 and big resources in onshore wind.

We want to make sure that the diversity of our generation sources in renewables is very strong. The massive advantage of tidal, of course, is its predictability. That is the huge value in tidal. The challenge for tidal is to be able to scale up at cost, which is exactly what the offshore wind sector has done over the last decade.

When I was Chief Secretary to the Treasury in 2015-16, I was assessing a lot of the parameters for offshore wind. It was an exciting time. David Cameron, George Osborne and others effectively decided to bet big on offshore wind. I think it paid off. The price of delivering offshore wind is down about two thirds to three quarters in that time. It is now the cheapest form of renewable energy in most cases—onshore wind is slightly cheaper.

You can see how by scaling up you can cheapen your delivery price, and that is what I am hoping to see that tidal does. That is why we have set the dedicated pot—£20 million in the current allocation round—to make sure that the Government put money in to see whether tidal will be able to scale up. I am very confident that it will be able to.

I am also excited by the Colwyn Bay project. It is something very important to be looking at, which I had a presentation on recently. A group of North Wales MPs came to see me about it. I think that is also a very exciting project for the future, so huge potential, Ms Jones, in tidal.

**Q147 Ruth Jones:** I agree with you. Obviously, the mixed portfolio is very important and tidal is reliable, but I am just worried. Do you think £20 million is enough and when do you see it coming on scale in an economically viable way? You said a decade. Is that a reasonable time?



**Greg Hands:** I hope it would not be 10 years but I don't think it is going to be coming on in strength in a few years, let's put it that way. I would not want to be more prescriptive than that. Is £20 million enough? The whole point about CfDs is that you are effectively putting public money in and the public has a right to see value for money. You have to keep it as a competitive process. I think that is strongly in the public interest.

You want to make sure that your auction process is not a process where every single project wins. You want to keep that as a competitive thing to ensure that the discipline is there within the different sectors to be able to produce plans that will deliver energy at the price they say but, also, to protect the public interest. The last thing the public want to be paying at the moment is much higher energy bills if somebody in my position gets it wrong on a contracts for difference auction.

Q148 **Ben Lake:** To return to the question that the Chair raised about LNG and gas supplies, I was very interested in your comments, Minister, about undertaking some energy diplomacy as part of your role. I am interested to know your thoughts about the potential, in the short-to-mid term, of enhancing our strategic gas storage capacity with an eye perhaps to looking to help other nations in Europe.

The IEA chief just this morning expressed concerns that, as far as the European market is concerned, this could be problematic and that he does foresee potentially some rationing having to be introduced for industrial users in Europe. It comes at a time where for some weeks, or at least in recent weeks, we have seen LNG supplies to the UK at quite significantly higher levels than is usual and at a rate that, quite frankly, we cannot really get it back out quickly enough.

It coincides with at least the day-ahead market, and UK wholesale gas prices, at a fraction of the European equivalent. Do you think there might be an appetite and, indeed, a role for the UK, in the short to mid-term perhaps, to increase its strategic gas storage capacity, if not necessarily for the domestic market, but perhaps as a way of supporting our European neighbours in their transition away from gas and other hydrocarbons from Russia?

**Greg Hands:** That is a very good set of questions, Mr Lake. Let me try to deal with them in the right sequence.

First, the UK does not have the same issue—does not have the same problem—with gas that many of our European neighbours do. Essentially, they have storage because they do have security of supply issues and they are overwhelmingly dependent in many cases on one particular country of supply. In that situation, you certainly would want storage and you would probably want to be counting the number of days, weeks, months of storage that you have.

Thankfully, we are not in that same position. We don't have the same underlying issue. Most European countries use storage as a means of supply. That does not mean that we shouldn't look at storage. That is



## HOUSE OF COMMONS

something that we are talking about. We are looking at what the UK might be able to do in terms of gas storage, recognising that we are starting from a very fundamentally different starting point, though.

In terms of how we can help Europe and our ability to help Europe, so long as we meet our own needs, I am in the market for being able to fill European storage and helping European neighbours, particularly at a time of going into next winter, for which they will be wanting to fill their storage this summer. I think that is a key thing, so long as we are satisfied that our own needs will be met. We must always put the British people's gas needs first but, so long as we are satisfied with that, on assisting European friends, neighbours and partners at this very difficult time, I am definitely in the market for helping them out.

Just a couple of weeks ago I was engaging with the Bulgarian Government, who had just had their gas cut off, and engaging with the Polish Government, which had their gas from Russia cut off. There will be others as well—Finland. All of these countries are key, important allies of the UK and they are all countries that we need to keep on board in the strong global coalition that we have against Vladimir Putin's aggression. The more that we can do, while recognising our limitations—energy, particularly gas, is a very physical commodity, and we recognise that we are some distance from Bulgaria—to assist our friends and allies I am definitely in the market for.

**Chair:** Thank you. Another supplementary from Geraint, please.

Q149 **Geraint Davies:** On that point, of course Vladimir Putin's invasion of Ukraine has in fact captured for the time being enormous amounts of uranium deposits, and Russia has its own. You will know that global supplies of uranium are limited. If global energy from nuclear was 12%, we would have run out by 2050. How do you factor that in, in terms of the balance you mention? Secondly, have you looked at the projects in Swansea, at Dragon Island, in terms of the lagoon there where they are doing databases in the lagoon and so on to make it much more commercially viable? It does strike me that we should be bringing these tidal projects forward, whether it is a tidal lagoon or the barrage, at a time when there are uncertainties over uranium supplies.

**Greg Hands:** On the second point, Mr Davies, I am always keen to look at proposals. New proposals for more renewable energy—I am always in the market for that.

To your first point on uranium deposits, we are confident about our ability to supply. Urenco is the joint UK/Netherlands/German uranium company, which also does a lot of other things on top of that. We have had discussions with Urenco and we are confident about the security of supply of uranium.

You are right that Russia is a big source. Kazakhstan and other parts of central Asia are also big sources, but so are Canada, Australia and Niger.



There are other supply sources out there. We are confident about the robustness of the ability to supply uranium going forward.

Q150 **Geraint Davies:** The price will go up, won't it?

**Greg Hands:** Price is always a separate question in terms of commodities. That is why it is important not to get confused or for anybody to be mixed up between price issues and supply issues.

Q151 **Geraint Davies:** On that, just so we are clear, if there is price uncertainty over uranium, that helps the economic argument for a home-based tidal lagoon and other tidal energy, because that is always going to go forward. We know the price of that. We can drum it down, but the gas price and the oil price and the uranium price are affected by Vladimir Putin and others, so surely for risk management we should be bringing forward these tidal schemes.

**Greg Hands:** I would not be as direct as suggesting a link between high uranium prices and more tidal lagoons, but I go back to my earlier point about diversity in energy sources. It is like a portfolio management approach. You want to make sure that your sources of supply are both secure and diverse. That is the best way to ensure that we have the best energy system for this country going forward.

Q152 **Chair:** Thank you very much. We have pretty much run out of time but I am going to throw one last question at you, if I may, and that relates to Wylfa and the potential new nuclear power station on Anglesey. For more than 10 years this Select Committee has listened to different Ministers talk very positively about the prospects for a new nuclear power station on Anglesey. Various UK Ministers in recent weeks have had more to say about this. Can I ask what really has changed? Has anything new changed in government, with the view towards nuclear power generally, but towards the Wylfa site specifically, that makes a new power station any more likely than at any of the other times we have talked about this over the last 10 years?

**Greg Hands:** Thank you, Chair. The first thing I would say is that the level of political commitment to Wylfa is huge. It was specifically mentioned in the British energy security strategy. The Prime Minister, the Secretary of State and I have all visited Wylfa this year. There is strong support at the highest possible levels.

The thing that practically has made the biggest difference, or I hope will make the biggest difference, is the passage of the Bill—the Nuclear Energy (Financing) Act as it now is—which brings the RAB model into financing nuclear. The lesson of Wylfa was that nuclear power stations are quite hard to be private developer-financed. They are just too big for many companies to be able to handle that kind of construction cost and that kind of risk.

The purpose of the Nuclear Energy (Financing) Act is to enable us to move away from big state-owned developers to crowd in more private



sector finance, so there is the ability for private sector finance to come in—UK pension funds and institutional investors—to finance this kind of thing and take some of the pressure off those private sector developers that would not necessarily have the ability to produce all that finance. I think that has been the most important change this year—the passage of that Act and the strong support for Wylfa.

The local Member of Parliament, Virginia Crosbie, is so passionate about Wylfa. When I was there, I think she introduced me to everybody. Anybody who lived within about 10 miles of Wylfa got an introduction to the Minister. It was incredible to see a passion for that project.

Therefore, I think we are moving in the right direction, but obviously there are a lot of key hurdles and barriers to work our way through to get there.

Q153 **Chair:** What you seem to be implying is that you and other Ministers, and indeed the Prime Minister, would not have gone to visit there unless you thought there was a very good chance of resurrecting this project.

**Greg Hands:** We will have to wait and see, but it is specifically mentioned as one of the sites in the British energy security strategy. We have the ambition for eight reactors to be approved before the end of the decade. All of the pieces are aligning in a better place than before.

**Chair:** Thank you very much. We are very grateful for your time, Minister, and to your colleague Paul Van Heyningen. I do not think there has been another Minister, outside the Wales Office, who has appeared on more occasions in front of this Committee wearing so many different portfolio hats than you, Minister Hands.

**Greg Hands:** I last came as Trade, I think.

**Chair:** You did. You always come incredibly well prepared, well briefed and your answers are always incredibly useful, so thank you very much again for giving us your time and your expertise. We look forward to seeing you on another occasion, either in this post or in another one. I will bring the meeting to an end.