HOUSE OF COMMONS

Welsh Affairs Committee

Oral evidence: Renewable energy in Wales, HC 1021

Thursday 18 March 2021

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Watch the meeting

Members present: Stephen Crabb (Chair); Simon Baynes; Virginia Crosbie; Geraint Davies; Ben Lake; Dr Jamie Wallis; Beth Winter.

Questions 69 - 109

Witnesses

I: Huub den Rooijen, Director of Energy, Minerals and Infrastructure, The Crown Estate; Matthieu Hue, CEO, EDF Renewables UK; and Frank Elsworth, Head of Onshore Business Development, Vattenfall.

II: Robert Proctor, Business Development Manager, Community Energy Wales; Simon Hamlyn, CEO, British Hydropower Association; and Gary Newman, Chief Executive, Wood Knowledge Wales.

Written evidence from witnesses:

– The Crown Estate

- EDF

- Vattenfall

- Community Energy Wales

- British Hydropower Association

Examination of Witnesses

Witnesses: Huub den Rooijen, Matthieu Hue and Frank Elsworth.

Q69 **Chair:** Good morning. Welcome to this session of the Welsh Affairs Committee. We are joined by two panels this morning to help us with our inquiry into renewable energy in Wales. In panel 1, which we will be hearing from in a few moments, we are joined by: Huub den Rooijen, director of energy, minerals and infrastructure at the Crown Estate; Matthieu Hue, chief executive of EDF Renewables UK; and Frank Elsworth, head of market development for UK onshore wind at Vattenfall. Good morning to you all. Thank you very much for joining us. Before we begin, my plea to fellow Committee members and our panellists is to keep questions and answers as concise as possible so that we get through as much of the programme as we possibly can.

I will start the discussion by asking the panellists to respond to a fairly general opening question. What are you seeing when you think of Wales and renewable energy? Where are the opportunities? Where do you think that progress has been achieved well, and where do you think some of the challenges still lie? Give us a sense of the overview that you each have when you think about renewable energy in Wales. Matthieu from EDF, would you like to go first, please?

Matthieu Hue: Good morning and thank you to you all. I will start by saying that EDF Renewables has been present in Wales for some time. We have two onshore wind farms operating in Wales and we see a lot of potential for renewables in Wales. A lot has been achieved, but if we think about the objective that we all have and share, which is net zero, a lot more has to be done. I think there is scope in Wales for all renewable technology to play its part, that is onshore and offshore wind, solar and any technology such as storage that can help the deployment of renewable technology.

Our experience is that it is not always straightforward to get these projects developed. We have an ambition to get 1 gigawatt of projects in Wales. It is a lot of work, a lot of investment and a lot of benefits for communities and the economy. We are certainly encouraged by the resources that Wales has, but there are also some barriers that need to be overcome. One of the key barriers, I think it is agreed, is infrastructure, especially in mid Wales, which has already stopped some projects, onshore in particular, from being deployed.

I think there is a big part to be played by onshore technology in Wales. There are a lot of projects being developed in very suitable locations. They can be developed at pace, which we know is important in the context of climate change. We have experience from developing projects throughout the UK and in other places, and these projects will bring huge benefits to the communities. I think Wales can get many benefits from the resources that are available. There are a few barriers, which are well

known, and they need to be tackled urgently if we are to make the most of what Wales has to offer. I am very confident that Wales will offer a lot.

I will end by saying that renewables offer a lot more opportunities than just affordable electricity. It is also a basis for community development, for enabling other infrastructure such as EV vehicles, which we do at EDF Renewables, offering connections for charging points for electric vehicles, bus fleets and so on. There is a lot more to renewables than just the electricity. I am very excited to be in this industry, and I am very excited about the benefits that it can bring to Wales.

Q70 **Chair:** Frank Elsworth, do you share that relatively upbeat assessment of the opportunities in Wales for renewable energy and where some of the challenges and barriers may lie?

Frank Elsworth: I agree pretty squarely with Matthieu. I think he has articulated it very well, and we have very much the same sentiment. Wales is open to all technologies. Vattenfall has three hybrid wind farms in Wales and we have the largest wind farm in Wales, the 228 megawatt Pen y Cymoedd scheme in south Wales on the Welsh Government Woodland Estate. We have had success, and there are success stories in Wales. There is a hiatus in infrastructure at the moment, and I think that is probably largely a legacy from the loss of the ROC subsidy, but the introduction of ambitions for net zero by the Welsh Government and UK Government give a lot of potential. We see it positively but, as Matthieu said, there are barriers and grid is a well understood one.

Q71 **Chair:** Huub den Rooijen, The Crown Estate is not an operator of renewable energy in the same way that EDF and Vattenfall are. You occupy a slightly different role in the range of industrial interests, but how does the Crown Estate view renewable energy in Wales?

Huub den Rooijen: A very good morning. When we think of Wales in the Crown Estate, we think first and foremost of the tremendous potential that the waters around Wales offer to create not only energy but also social benefit for the area. For those of you who may not be as familiar with the Crown Estate, it is an entity set up by statute that is managing the seabed around England, Wales and Northern Ireland and it is working to create value for the nation. We return the profits that we make, which over the past decade have been close to £3 billion, to the Treasury for the benefit of the nation.

I think of Wales and the very large fabric of interests, because being successful in developing renewable energy means marshalling a large range of forces—stakeholders from the environmental space or the industrial supply chain space or the technology advancements that we need—and marshalling them to be successful. I believe we have been successful in the past. Witness the very large wind farms already operating to the north of Wales in places like Rhyl Flats or North Hoyle, or the large new developments that are currently underway like Awel y Môr, the very large wind farms to the north, but also we have emerging

technologies. We have wave power and tidal stream power. There are a lot of emerging technologies that have significant potential in Wales, yet where the technology development pathway has not always been straightforward. Making sure that all the entities play their part in these new technologies developing their full potential is clearly an area of note.

The last bit in this introduction, which I want to close on, is the enormous potential that is floating offshore, which we completely recognise. We are working very hard with a wide range of stakeholders from Welsh Government in this particular case, UK Government and also with the supply chain. We have a relationship with, for example, the Offshore Renewable Energy Catapult, where I declare an interest as a non-executive director. That plays a huge role in the technology side and making sure that we unlock the supply chain opportunities that an emerging floating offshore wind sector would offer to Wales.

We want to play our part in positioning the Welsh supply chain to be competitive in that regard, and that is not straightforward. There may be more questions on that point. We recognise the tremendous potential but also the complex fabric of environmental and other users of the sea. We have not spoken about fisheries, for example, but we are acutely aware that we are in a space that is already occupied by a number of business sectors that we want very much to be cognisant of as we develop our future vision.

Q72 **Chair:** I am sure we will come back with a few more specific questions on the potential for more offshore floating wind. I will come back to some remarks that Frank Elsworth made a few moments ago about the changes to the ROC subsidy scheme. I think the phrase you used was it is driving a hiatus in some of the development, Mr Elsworth. Can you say a bit more about your view of how the subsidy regime from UK Government has worked to enable further rollout of renewable energy and where it has acted as a hindrance or where changes to the subsidy regimes have acted as a hindrance?

Frank Elsworth: Yes, I can. In more recent history we had the ROC, which was a good subsidy for renewables and it drove a huge amount of the demand and was a great enabler for a lot of renewable energy across the whole of the UK. It came as a bit of a cliff edge when it was removed about five years ago, or maybe a bit more recently than that. It left a gap in what we refer to as a route to market. It is the idea that we produce electricity for a cost but we need to have confidence that there is somebody who can pay for that electricity and pay more than what it costs us to produce it. There has been a hiatus as we try to understand how we achieve that without the subsidy mechanism, the support mechanism.

There has been a great reduction in the cost of renewable energy, and that is a real positive. The introduction of the CfD, the contracts for difference mechanism, is a very good idea and it has been highly effective as well. That has given investors confidence that the price will

be stable, which of course is good. It is not a risk, which gives people confidence, and also it is competitive. It has forced developers to sharpen their pencils and come in as cheaply as they possibly can. It is a very good mechanism. Now onshore wind has been introduced to pot 1, it again gives a lot of confidence that we have a route to market for that technology. We would like to see pot 1 available to onshore wind for the longer term, which gives confidence for investment.

The Committee on Climate Change has come forward and given some figures on how much investment is needed from the private sector to meet net zero, which is in the order of £50 billion or maybe more than that. Without that confidence and that price stability, you are not going to get the investment, but because the Government have brought it in, it looks very positive now.

Q73 **Chair:** Matthieu Hue, do you agree with that analysis of the way the subsidy regime has served to stimulate rollout?

Matthieu Hue: Entirely. I think the CfD that is now available to all renewable technology is a significant enabler of investment across the UK. It provides a route to market that gives low price for the consumer and high investment. I think it is a good instrument to provide for new renewable capacity.

Q74 **Chair:** Huub, you were talking about the enormous potential of floating offshore wind. Do we have a subsidy regime in the country that is appropriate for the vision of some of the potential developers in this space?

Huub den Rooijen: I believe that when we think about floating offshore wind we want to make sure that we combine three threads. One thread is the subsidy regime, the second thread is making sure that we set up our supply chain to be competitively successful and the third thread is access to the seabed. I believe we can optimise by making sure those three strands work together, because floating offshore wind is a technology that is emerging at the moment. We have only six turbines in the UK that are floating, compared with thousands of turbines on fixed foundations.

Floating wind is a very early-stage technology and therefore it requires nurturing to reach its full potential. It has tremendous potential, and it also has tremendous export potential if we get our supply chains operating early enough, but it requires a dedicated support framework to make sure those three strands can weave together. The existing framework needs careful consideration to make sure that floating wind becomes successful.

Q75 **Dr Jamie Wallis:** A very good morning to the witnesses, and thank you for being here today. Staying on the general theme of renewable energy support in Wales, what is your assessment of how effectively the UK and Welsh Governments work with each other to promote renewable energy projects?

Frank Elsworth: Thanks for the question. To understand how effective collaboration is in the work for the UK Government and the Welsh Government, it is probably quite useful to understand what role they play in delivering renewable energy projects.

Renewable energy projects need five things, basically. They need land that is available and unconstrained, and that is something, for instance, that the Welsh Government can provide, or it can be from private land ownership. They need a planning consent, which is supported by planning policy, which can be your net zero targets and preferred areas of development, and that is a combination of the UK Government responsibility for policy and the Welsh Government responsibility for the devolved powers for issuing planning consents. They need the resource, and there is no shortage of wind resource in Wales.

They need a grid connection, which is provided by your transmission network operators and your distribution network operators, in turn governed by the rules from Ofgem, which in turn is governed by the rules given to them by Government, so Government have an influence. And they need a route to market, which I touched on in an earlier question and the importance of the contracts for difference. I think all developers agree that it is a very sound mechanism. You can also have power purchase agreements and you can sell directly to the market, but that comes with its own risk and is a bit more matching supply and demand.

When you understand the roles of the UK Government and the Welsh Government you can understand where the interactions should be on this. We want to see an alignment of policy, which I think is very strong. That is a real positive. Planning for onshore wind is devolved to the Welsh Government now, and that is a better place for it. There is a requirement to align on the grid. The mid Wales grid problem is well known, but getting access to grid is a problem for the whole of the United Kingdom. It is just that mid Wales perhaps captures it as a very neat case study. The UK Government have given the instruction to Ofgem, who have then given instructions to the distribution network operators and transmission network operators.

There probably is not enough time to go into the detail on this particular call, but you are getting offers that are most cost effective for the consumer now. That is not the same as what will be the most effective grid network system in 2050 in a decarbonised society, so we have a bit of a conflict here. There is a role for Welsh Government and UK Government to align on this to understand what we are trying to achieve: are we trying to meet the demand of consumers today, or are we trying to meet the demand of the consumers in 2050?

Aside from that, I think things are pretty positive. That is quite a long-winded answer to your question, but I hope that by understanding what the roles are you can understand where the influence is and where alignment is really needed.

Q76 **Dr Jamie Wallis:** That was a very comprehensive answer. Mr Hue, do you share that opinion or do you think slightly differently to Mr Elsworth on this?

Matthieu Hue: I do share it. I think it is a very comprehensive way of articulating the relationship and the benefit of collaboration on certain points, so this alignment is absolutely key. Also being clear about the pace at which renewables can be deployed is very important in the budget that will be set for future safety options. I think sharing goals in the medium to long term but also being able to articulate that in a plan over the next two, three, four years is very meaningful. If we take the example of the mid Wales infrastructure concern, we should not wait too long before we articulate a plan to overcome this issue. There is a lot that can be done working together to make things happen more quickly for the benefit of Wales and the UK.

Huub den Rooijen: It is a bit of a difficult question to answer. I had the benefit of thinking about my answer longest, and I believe from our perspective we see enormous alignment on the net zero agenda. The Crown Estate is committed to net zero. We are also committed to enabling our customers to achieve net zero in a responsible manner.

The collaboration between devolved Administrations—so Welsh Government—and central Government is best exemplified by the Offshore Wind Evidence and Change Programme that we launched in December, together with BEIS and DEFRA, and Natural Resources Wales is a partner in the programme. It is aimed at creating the evidence base for an environmentally sustainable framework for growing future offshore wind. The Crown Estate is funding the programme and we see that the collaboration between the devolved Governments, central Government and a wide range of stakeholders—there are over 25 stakeholders—is very effective. We are seeing very good collaboration on the ground.

The Celtic Sea is the next exciting opportunity, and we see that there is a great alignment of forces from central Government and Welsh Government to want to make it happen. We are working very hard to co-ordinate all the efforts required to make sure we can bring successful opportunities forward for the private sector.

Q77 **Dr Jamie Wallis:** Following on from that, how can the UK Government best support the deployment of renewable energy generators in Wales?

Huub den Rooijen: We have two frameworks. We have the existing CfD allocation framework, and allocation round 4 will be up next. We believe a continuation of that system is absolutely right for the industry. It has been very successful, as EDF and Vattenfall have already remarked. We have seen the recent results of our offshore leasing round 4, where there has been massive interest in the seabed resources around the UK, including some locations north of Wales. We see that the existing regulatory framework is very successful, and we should continue with that. We have grown the offshore wind sector from nought to around

10% of national electricity supply in 20 years, and that is because the prevailing regulatory framework has been successful.

However, what got us here is unlikely to get us where we need to be. We talk about 40 gigawatts in 2030, which would be enough for about 40% of national electricity consumption. We firmly believe that is achievable provided we recognise the complexity of an ever-busier seabed, and marshalling the huge range of stakeholders effectively is a big task ahead. The others have already spoken about the need to make sure that transmission is ready for that, and we are seeing in other parts of the country, like in east England, how the evolution of the transmission regime is a critical condition to make sure that we can continue to unlock the offshore resources. Offshore resources need to make their landfall somewhere in a way that is acceptable to communities.

The second limb of my answer is that we need to examine some of the ways we evolve our regulatory frameworks such that we can make sure that we set ourselves up for success with the tremendous growth that we are projecting as we move to net zero. A lot of work is happening in this space already. For example, the offshore transmission network review that the Energy Minister commenced about a year ago is critical in making sure that our transmission infrastructure is suited. Grid offshore is as important as grid onshore for unlocking these resources. Of course this needs to sit within a world where there are many other competing users of the sea, business users, industrial users or environmental functions. The Crown Estate is working hard in that very busy space to play its part in unlocking the pathways to continue growth towards 2050.

Q78 **Dr Jamie Wallis:** Mr Hue, what are your thoughts on how the UK Government can support the deployment of renewable energy generators?

Matthieu Hue: To build on what Huub said, I agree with the very good comments he made. We know we have the projects, so we have the potential, there is a pipeline of projects and it is how it is deployed to best effect. We need to have visibility of the target for installed capacity that we seek to achieve by when. Then we can scale up our investment and create some hubs. We have a lot of projects in development in Wales. We could accelerate our service centre development for operating our wind farms. If we know that within five years we will have reached a certain capacity, we will make that investment earlier or we will make it in Wales rather than maybe elsewhere in the country.

It is understanding that the potential is there, the projects are there and therefore what is the pace at which these projects are developed? How do we scale up and bring these opportunities early? There is quite a bit of planning to be done for individual companies but also, as an industry, combining our thoughts to make this investment happen as quickly as we can.

Frank Elsworth: It is a very important question. As I see it, there are two parts. You have to create the opportunity in the first instance, and that is where the UK Government can play a part. As I said earlier, you need to have the land available, you need to have your planning consents, you need grid connections and you need a route to market. That allows developers to make an investment decision, and those investment decisions are the order books for the supply chain.

The second part is how you ensure that the implementation of the projects is effective in getting investment by developers towards local manufacturing and employment. There needs to be incentivisation here for local content, to measure developers on the social value that proposals can bring and to ensure there is also a path between—there is conflict in the CfD between the lowest cost of our energy and local content. At the moment, UK and Welsh content may not be the cheapest, so we are incentivised to go for the cheapest whereas, if there were some other measures and mechanisms in there, you might see more investment in the UK and the Welsh supply chain. From a longer-term perspective, with that investment you may see the Welsh and UK supply chain grow, become cheaper and begin to expand its sphere of influence.

One other thing that is important is that it would be very helpful for the Government to be able to map out where the tier 1 suppliers are in the UK. It is not very visible. Tier 1 suppliers will conventionally go to the last reliable supplier or subcontractor that they used previously. We need to facilitate them to understand that there are more opportunities and more businesses out there, more companies that can do this job.

Q79 **Dr Jamie Wallis:** I understand. Mr Hue and Mr Elsworth, how have EDF's and Vattenfall's own renewable energy projects benefited Wales?

Matthieu Hue: We have a couple of onshore wind farms in operation, and we have service centres where we operate to maintain the wind farms. There is employment, but there are also community benefits and a sizeable amount of money that we can reinvest in the community. There are a number of schemes.

If we look at the development that we have in our pipeline, I just take an example. I mentioned the 1 gigawatt aspiration for Wales, and that is more than £1 billion of investment and £100 million of community benefits. It is a couple of thousand jobs alone for this investment. The way we come across developing our projects is liaising with the community to understand their needs and the opportunities for them. We can invest in a broad range of projects: it can be education; it can be some infrastructure around EV vehicles; it can be all sorts of things. We will engage early in all developments to understand these opportunities. We will also engage with the local businesses so we have a position of what type of activities we will need and they could service or provide for the duration of development, construction and operation.

There is a lot being prepared in advance of this investment happening in wind farms or PV farms on the ground, and I think there is a lot of benefit for the communities that can be anticipated. Again, I was speaking of visibility as to what developers intend to do. Engaging with local supply chains, local businesses and local communities, that is where the benefit also comes with the level of engagement.

Frank Elsworth: The Pen y Cymoedd wind farm is the perfect example. It is the best part of £400 million investment, with just over half spent in Wales. It has supported 600 jobs during the construction, and about 90% of them were within 35 miles of the scheme, which is obviously excellent news. On the back of that we opened up a service hub and a Welsh office. There were a number of apprenticeships. The lease payments are obviously going to Welsh Government, to the Treasury, and they are significant.

We have a community benefit fund of £1.8 million a year, and that is just over £5 million since it opened. Within that, since April, £500,000 between March and September went directly for Covid relief. That kept 37 businesses afloat; a real success story. There is £4 million in business rates coming out every year, there is a £3 million habitat management plan fund with that to support regeneration, ecology and biodiversity improvements.

We have the 24-kilometre mountain bike trail, the Blade trail, which is an excellent addition. It has opened up the mountain for visitors from local and far away. Before it was very dense commercial forestry that was pretty inaccessible. Now we have nice paths for people to take their horses along or walk themselves. People with limited mobility can now access it, so it has created a real centre there. The forestry is allowed to continue as well. What this scheme has done for Wales in that area is very positive.

Chair: We are going to have to pick up the pace a bit with questions and answers if we are going to get through the programme.

Q80 **Beth Winter:** Thank you, gentlemen, for coming in to speak to us this morning. I want to focus on local employment and upskilling the workforce. The Covid pandemic has resulted in significant hardship and increases in unemployment in Wales. A post-Covid economy should really be unpinned by the transition to a green economy.

I have a two-part question. How do you think the UK Government can best support local manufacturing and local employment in the renewable energy sector? Given the importance of upskilling or reskilling, what can your respective organisations do and what are you currently doing to promote skills development and local employment as part of the renewal energy project? In your answers, can you also focus on any key barriers you feel there are to the creation of new jobs in Wales? I will go to Mr Elsworth first, because I saw in your written submission that you made reference to the importance of this.

Frank Elsworth: The principal barrier to jobs is opportunity. You need to have the renewable energy projects in the first place to have the investment in the supply chain that then creates the jobs. I touched on some of those barriers earlier. You need to get the consent, you need land available and so forth.

In terms of the training required, what we have found is we are spending quite a lot of effort trying to understand this with our South Kyle wind farm. We have a 240 megawatt wind farm in construction in south-west Scotland. We made the investment decision in April 2020, so right in the middle of the pandemic. You can see the difference that investment has made compared to if we had not been able to make the investment decision. The first thing is it has created a lot of jobs. In that example, there are 350 people now with a job in that area who didn't have one before that investment decision. There is that part.

In terms of the upskilling, again it is a very good question. What we are finding is that schools, colleges and universities are producing people who are very sound, and all they need is a bit of on-the-job training and that works very well. There is more work to be done for retraining people who already have skills in a similar sector, but that is easily doable.

We came across an interesting example on this. The South Kyle wind farm is not too dissimilar to south Wales, it is an ex-coalmining community where the coalmines are closing or have closed. There are a lot of people who have skills, who know how to use plant, but there is no work for them at the moment. The barrier that was preventing them from being able to work on a wind farm was that they did not have driving licences. There were three gentlemen who did not have driving licences. You realise that this is a barrier, but it is a barrier we can easily solve.

What we find is that when you engage with local communities, you understand that there are jobs to come here and you understand what skills are needed for the tier 1 suppliers, for the civil works contractors and the turbine suppliers, you understand what skillsets exist in the local communities and the slightly wider area, and you can then begin to map it together. Where you find that there are gaps in skills you can rely on the job enterprise businesses, Scottish Enterprise, the Department for Work and Pensions, and you can then try to secure opportunities to get them a bit of training.

The driving licences is a very interesting one, because it was not something I expected, or us as a team expected, to be a barrier. It is interesting to see how easy it is to overcome. The main thing is you have to have the opportunity. You have to have the investment. You have to have all these things—the planning permissions, the land, a grid connection and a route to market—because without those things there is no investment in the first place.

Q81 **Beth Winter:** What about UK Government? What can they do better?

Frank Elsworth: The route to market is key. It is the route to market and making sure there is a CfD in place that everyone can work with. That is the key aspect. The Committee on Climate Change has identified £50 billion as being needed by 2035 for us to be on target for net zero. If investors have confidence that they are going to have a stable return, they will make the investments. This is absolutely key, the CfD and maintaining the policy support for net zero.

The other aspect, which the other two gentlemen have mentioned, is it has to be done quickly. That is where the UK Government can set a stall out by providing a catalyst to allow that investment to come in earlier.

Q82 **Beth Winter:** Mr Hue, I note that you have previously expressed concern as to whether Wales has the capacity to create more jobs in the future. I would be interested in your comments, please.

Matthieu Hue: First, these renewable projects that we are speaking about are very local in nature. Throughout their lifecycle—the development, construction and operation—naturally developers will work with local businesses. In our project we have project development, and most of the companies we work with are local ecologists, lawyers, engineers. They can be sourced locally.

To make a link to UK policy and growth of these jobs, we have a CfD auction coming this year. If the target for onshore wind and PV is low, it is unlikely that the job potential will materialise quickly for Wales. If we are sure that our budget for CfD will enable a lot of investment, we will see these jobs growing in Wales because they are local projects, employing local people and local businesses. I think there is a very clear link between UK policy, such as determining how many projects will be built across the UK, and the local impact, because these projects are ready. There are, of course, the barriers we mentioned, like the grid, and I think that is with Wales to resolve. There is a good case for that, but the projects are otherwise ready. The jobs are there to be created.

I will just add in terms of upskilling, it is for sure that we can employ people who were not in the renewable industry before. There is no question but that some jobs are absolutely applicable to renewable development, investment and operation, but we also actively pursue apprenticeships. There is a lot we can do with local colleges. Usually with the community benefit, we seek to support colleges and people working to go through an apprenticeship. There are incredible ways of getting young people the skills they need to succeed in their future careers.

Huub den Rooijen: I am going to take a slightly different perspective on the answer. I believe one of the most effective things that can be done is to make sure that there is very high quality broadband accessible. If you think about these projects, a project being planned today will still be operating in 2050. Therefore the technologies that get used to operate these projects will become ever more technologies that will, for example, rely on remote access. So remote working, virtual reality in terms of

inspecting the insides of turbines in a remote, hostile location. There is a lot of effort being expended in making sure that health and safety performance is enhanced, and that minimises the need for physical intervention. All that translates into more jobs that get done remotely. As we have seen in the pandemic, there is a lot of work that lends itself to being done remotely, but the broadband systems need to be there to support it. I believe that is one strong element.

The second element is, being in the offshore wind sector from the start, from the late 1990s, we can see how, from a developer perspective, having strong offshore support hubs is very helpful in creating local supply chain. A great example is what is happening on the Humber, where initial anchor investors come in with supply chain and pull in other investors. We are now seeing a large new development on the south side of the Humber.

What it does is it sucks in supporting suppliers as well. I believe there is a real opportunity, again, if we look at the Celtic Sea area, to see how we can create a compelling offshore hub that will help to service that Celtic Sea area, and which could work across the border into Irish waters where there are also floating offshore wind farms being planned. The development of a strong offshore hub in that Celtic Sea region, I believe, would be a real enabler for employment.

Q83 **Ben Lake:** Thank you, gentlemen, for attending this morning. I would like to turn very briefly to the Crown Estate. Mr den Rooijen, you mentioned the Celtic Sea. I am quite interested to learn a bit more about what the Crown Estate is doing to ensure there are adequate seabed leases available in Welsh waters for future projects to be deployed at an appropriate scale and within that, of course, the Celtic Sea in particular.

Huub den Rooijen: First of all, there is significant potential in the Celtic Sea and we have been aware of that for a little while. In fact, the market has been telling us that they are interested. In December last year, we went out on a market engagement inquiry to gauge the level of interest. We have received responses, and we have been analysing those responses. We have not yet been able to bring those results forward, but we will be able to do so very shortly. The reason we haven't been able to do that earlier is because it depends on round 4. You will have seen the locations that have come forward from round 4. Some of those are in the Irish Sea, and round 4 is still in progress. It is currently going through a phase called "habitats regulations assessment," which is effectively a duty that is placed on us as the Crown Estate to ensure that the projects proposed as part of round 4 do not create an unacceptable environmental impact on certain protected habitats. We are carrying out that habitats regulations assessment at the moment.

One of the issues we need to assess is whether there is a dependency between the project being proposed by the market and the Celtic Sea area, because of course we could not do anything that would degrade the integrity of the round 4 process. With the round 4 locations having

become clear fairly recently, about a month ago, we are now in a position to conclude our assessment on the outcomes of the floating offshore wind market engagement. You can expect to hear from us very soon on that front.

Q84 **Chair:** Perhaps I could come in with a follow-up question to Mr den Rooijen on what he has just been talking about. Is there now alignment between the kind of timetables that potential developers are working to and the timetables that the Crown Estate is working to with round 4 and other potential future rounds?

Huub den Rooijen: We are working very hard with developers, with BEIS and, indeed, with a wider range of stakeholders to make sure that, once we are able to present the timetable for leasing in the Celtic Sea, it is an attractive one. It would not necessarily mean opening the gates straightaway, but is one that would say we need to make sure that, in shaping this leasing opportunity, we take a holistic perspective and that it is responding to private sector appetite. That is clearly important. The private sector fulfils a key role, but we also have to think about those broader aspects, such as ensuring there is a competitive supply chain in place when these projects come to market. There is a certain alignment of various policy areas required, and that is very much part of the discussions that we are having at the moment.

Q85 **Chair:** How closely are you working with the Irish Government on these opportunities? They are also looking at potential floating offshore wind developments. I guess there isn't a direct equivalent of the Crown Estate in Ireland, but there must surely be a regulatory body that you are in discussion with. Is there a broad alignment between what is happening on the UK-Welsh side and on the Irish side to ensure that all the opportunities being assessed are on a broadly similar timetable?

Huub den Rooijen: We do not have any structured dialogues, if you like. Our remit is strictly a remit within the UK, but it is obvious that the waters that we are entrusted to look after have international boundaries, be they with Ireland or, indeed, with Belgium or the Netherlands. On an incidental basis, an occasional basis, we do look together and we do collaborate. We are very much looking westward, and we are aware. That is definitely an area that we are interested to explore further.

Q86 **Chair:** Finally on this subject, could you say a bit more about your relationship with BEIS and how the Crown Estate relates to UK Government more broadly? Presumably if Ministers at BEIS say, "We want such and such development to happen," they are not able to dictate the timetable purely themselves, are they, because they need to work in collaboration with the Crown Estate? How does the Crown Estate respond to the policy objectives of UK Government Ministers? Do they set your timetables, or is it just one other consideration that you take into account across the broader range of your responsibilities?

Huub den Rooijen: I think it is somewhere in the middle. It is clear that we work with the grain of Government, and therefore the Energy White Paper and the Government's 10-point plan are hugely important inputs. We are in very close collaboration with BEIS, DEFRA and other Government bodies to make sure that independent responsibility that has been vested in us through the Crown Estate Act can be discharged in a way that creates the best value for the nation. Therefore we are—for example, in floating offshore wind—in very close discussions with those Government entities to make sure that what we bring forward delivers on Government policy.

We absolutely support the ambition that has been laid out in the 10-point plan. As I said, we believe it is achievable, but it is achievable provided there is a range of activities being undertaken. We see it as our role to enable the private sector and Government policy to be successful. We have a unique position: we have been entrusted with this role between the Government, the private sector and a wide range of stakeholders. We believe the best way we can produce value is to balance all those perspectives in unlocking the seabed. It is therefore an independent role, but we want to use that independence very judiciously to make sure that we genuinely act in a value-generating way. In the end, the net zero 2050 agenda, the ecological crisis, the biodiversity agenda and creating social benefits from these big changes, they are motivations that bind us all.

Chair: Thank you very much. Those were very helpful answers. We are coming to the end of the time allocated for the first session of this morning's meeting. Unless there are any further quick questions from colleagues or any closing remarks that any of the panellists would like to make, I think we can bring this part of the proceedings to a close.

Thank you again to Huub den Rooijen, Matthieu Hue and Frank Elsworth for your participation this morning and for being so generous with your time and so frank with your answers. It is very helpful. We will let you go now.

Examination of Witnesses

Witnesses: Robert Proctor, Simon Hamlyn and Gary Newman.

Chair: We now welcome our second panel for this morning's session: Robert Proctor from Community Energy Wales; Simon Hamlyn from the British Hydropower Association; and Gary Newman from Wood Knowledge Wales. We are very grateful for the time you are giving us. I am not sure how much of the first session you were able to listen to, but we are obviously looking at a broad range of renewable energy sectors in Wales this morning, and looking at how well UK Government and Welsh Government support the deployment of these renewables in Wales.

Simon Baynes was due to open the questions for this second session. He has been called into the Chamber, so I am going to reverse the order and

call on Geraint Davies. Geraint, if you are with us, would you like to start with your questions, please? No Geraint, so Beth Winter.

Q87 **Beth Winter:** Thank you, panellists, for coming this morning. My question relates particularly to the importance of local communities to renewable energy development. In my constituency of Cynon Valley, I have set up an advisory group looking at the post-Covid economy and renewable energy. A transition to the green economy is going to underpin, we hope, the post-Covid economy in our community. I know a lot of local people in the south-west valley would be very keen to hear your views on what you feel is the importance of local communities being included in the development of renewable energy in Wales.

Robert Proctor: Thank you for that question, and thanks for inviting me to the panel. Obviously I feel it is very important that communities are involved. There are four key reasons I am personally involved in the community energy sector. The first main reason is that in the community energy sector, community energy projects, all the profits that are generated from those projects are used locally to support other local projects. Many of those are decarbonisation projects. For me it is all about building community assets so that we can increase the impact that we can make. Last year, in the community energy sector across England and Wales, about £4.7 million was raised for local economic benefits.

The second reason is it offers people, businesses and organisations the opportunity to invest in decarbonisation through community energy offers. Through our share offers and bond offers, we are able to raise large amounts of finance. Again, that is a prime opportunity to retain the interest from that finance in the local community. We are circulating that money within the local community and giving people a stake in their future. Over £30 million was raised last year in England and Wales. It is also about democratic control. If we own it, we can have choices about who our contractors are and we can prioritise local contractors. We can also open up the schemes for education, inviting schools and so on, and often community projects are involved with innovation, trialling new and different ways of doing things, such as selling energy locally.

Most importantly of all, particularly in the times we are in, it gives an opportunity for communities to play a role in decarbonisation. There are over 90,000 members of community energy schemes across England and Wales. In a ClientEarth survey, they found that three quarters of people were interested in being involved in community energy projects. In the latest Committee on Climate Change net zero report, it said that it will not be possible to get close to meeting the net zero target without engaging with people or by providing an approach that focuses only on supply changes. I feel it is a massive opportunity, with many, many volunteers. It involves a huge amount of social capital that you could tap into through engaging with the community energy sector and communities.

Simon Hamlyn: Thank you very much for the invitation. I would echo what Rob said in his response. The British Hydropower Association totally recognise the value of communities in the development of hydropower in Wales. There are probably over 300 schemes that have been developed in Wales, and each of those creates its own local economic activity, local employment and local investment in many, many rural communities.

It is hugely important, and it is something that we have recognised. We have worked very closely with communities in Wales on a number of projects, and we support them with our events during the course of the year. We recognise the value that the community engagement brings, not only to local people but to local businesses and local supply chains.

Gary Newman: Good morning, everybody, and thank you for the opportunity. I am a little bit of an outlier. Wood Knowledge Wales is championing the transformation of Wales into a high-value forest nation. Basically there is something in it for everyone. It means growing more trees, more manufacturing, more processing, more jobs, but importantly we are championing an increase in the ownership of the forest by communities. Part of the problem of the forest plantings of the 1970s is that they were more imposed than invited. We see a fantastic opportunity for this kind of transformation.

Wood is a key decarbonisation raw material for industry, so as we bring in regulations to decarbonise the built environment, for example, the demand for timber products is going to explode. It is already exploding all over the continent. Where is that wood going to come from? At the moment it is nearly all imported, yet we have a degree of forestry in Wales, although we are largely deforested.

The potential for jobs for farmers growing trees, increased income on farms, is huge. The potential to bring in added-value manufacturing is huge. We already have a significant cluster of timber frame manufacturers choosing to locate in Wales because of the advantage of the location and the ability to feed the Welsh market and the larger market in England. We need to build on that and bring in more manufacturing.

The challenge is that all these opportunities need to be purposefully sought, not expected just to emerge naturally, because they will not. There is a real need for a purposeful policy framework around the use of timber for all its applications. When you grow a tree, not every single part of that tree can be used for construction materials and therefore you have biomass opportunities as well.

From a national targets point of view, timber in construction and afforestation are clearly well-understood greenhouse gas removal mechanisms. As Wales strives to achieve net zero, surely these opportunities are going to come to the fore.

Not everything does Wales have a natural advantage for, but Wales does have a natural advantage for afforestation and the growing of the kind of trees the industry needs because of its wet and warm climate. Most parts of Europe where trees should be grown, trees are being grown. That situation is not the case in Wales. We have huge potential suboptimal land where agriculture is struggling and marginal, and where trees are a viable economic alternative. Production in Wales has been in decline, whereas everyone else—Scotland, Ireland, less so in England—is on the rise, as it should be, so there is an issue.

Q88 **Beth Winter:** Mr Newman, like Mr Proctor, are you committed to a community-led approach and local ownership in terms of the sustainability of your proposals?

Gary Newman: We are committed to a public sector, third sector and private sector approach because, for example, if you are going to build a wood fibre insulation plant, that is a £50 million investment. That needs to come from the private sector. If you are talking about afforestation projects around communities, that can be very much community-led. If you are talking about joinery enterprises, that can be very much community-led. It is horses for courses, but there are definitely significant opportunities for community projects.

The Skyline project in Wales, in Treherbert, is a fantastic exemplar for that. We are championing the creation of forest towns throughout Wales, which draws in the communities to value the forest in terms of amenity, biodiversity and, critically, productivity and jobs for the kinds of products that society needs.

Beth Winter: I know the Treherbert project very well.

Q89 **Ben Lake:** Mr Proctor, in your written evidence you stated that local ownership in Wales could have a wide range of benefits given a supportive policy environment. What would that supportive policy development look like?

Robert Proctor: To recognise where we are at the moment, particularly since the removal of the feed-in tariff, most direct support for the community energy sector has been gradually eroded over the last number of years. Currently the community energy sector is expected to compete on a level playing field with commercial developers, but obviously it is not a level playing field because we are starting from scratch with volunteers and so on without access to capital and experience, those sorts of things. Particularly it is small-scale renewable energy projects—which is traditionally the level of community energy projects—that have suffered as a result of policy changes.

To some extent we are disadvantaged because the community energy sector cannot access things like contracts for difference, so we are not even able to access those measures because they are not available to schemes under 5 megawatts, and most community schemes are under 5 megawatts.

Key things that would improve the policy environment are, first, recognising the value the community energy sector brings. I have touched on that already. It is the UK Government working with ourselves, our partners, Community Energy England and Community Energy Scotland, to develop a community energy strategy for the UK. There are a number of key areas we need to focus on.

First, we need somehow to incentivise the development of community energy schemes. Once we recognise the value, it makes sense to try to incentivise those schemes. Something that would make a massive difference—and probably the removal of the feed-in tariff has had the biggest negative impact on the development of the community energy sector—is some sort of community tariff. That could be some sort of export tariff or it could be something similar to the feed-in tariff. They have it in the Netherlands, so it is not unheard of.

Often people worry about cost, but it does not necessarily have to be that much more than the current wholesale price of the energy market, or it could even be linked to the wholesale price of the energy market. But it gives a slight incentive and gives more assurance to those who are looking to invest in and develop community energy projects.

You could also look at the contracts for difference process, perhaps creating a pot for community energy projects and enabling schemes under 5 megawatts to partake in that. That is another measure that could be taken, and it is perfectly possible, as I understand it, within the structure of contracts for difference to do that. Also thinking about the RHI and maybe a community RHI that specifically supports community energy. They are some of the areas you can incentivise.

You also need to look at reducing the barriers. One of the barriers is getting up-front investment, but the UK Government removed the social investment tax relief for community energy schemes, which means it is harder to get investment, particularly now they are more risky with the removal of the feed-in tariff and export tariff. Reinstating that would be a simple measure that all other social enterprises are able to benefit from, but community energy is not currently.

VAT on energy saving measures, battery and solar could be reduced to zero, which is another measure that could be introduced. Business rates is another area, and I am sure Simon will talk about that, particularly the impact it has had on hydro schemes in terms of the valuation. I know business rates is partly a devolved issue, but that could be another way of incentivising community energy and reducing that barrier.

Grid—as you probably heard from your other witnesses—is a big issue, particularly in areas where there are grid constraints. Up-front investment in grid would be valuable. Accessing land is key. You had the Crown Estate earlier. It would be great for communities to be able to develop projects on the Crown Estate, on NRW's estate and on other

estates. Looking perhaps at introducing further community rights, I know that is a devolved issue.

The fourth area is looking to create local energy markets, so supporting the Local Electricity Bill and then working with us and Ofgem to help communities to be able to sell their energy locally, and that is something that communities want to be able to do. They want that localised approach to energy generation and sale.

Finally, it is about providing that support and funding. I know, again, this is largely a devolved issue, but we have the Welsh Government Energy Service in Wales and there is the CARES work in Scotland and the Rural Community Energy Fund in England. It is making sure that is maintained and support for it is maintained. Also thinking about innovation funding and other funding that is issued, we have just had the green recovery funding through the DNOs. It is making sure that money is used to have the maximum impact on local communities. I believe that, by involving the community energy sector more effectively, we can add a huge amount of value to those investments.

Q90 **Ben Lake:** Some good points there. Mr Hamlyn, we have heard quite a bit this morning about the feed-in tariff and the replacement for the smart export guarantee. How effective has the smart export guarantee been in supporting smaller-scale renewables?

Simon Hamlyn: In terms of the smart export guarantee, it has not had any effect on small-scale hydropower at all, and it will not do. The sad thing about the smart export guarantee is that, when it was launched, I had a call from BEIS saying, "We are launching this smart export guarantee, but it will not benefit your industry." In two fell swoops we were told it was coming and that it would not be of any use to our members. That is a great tragedy.

The dilemma in Wales is you have a Government who maintain they are supportive of hydropower while at the same time reducing the support they give. For example, we have seen NRW increase its charges, because it has to to get cost recovery. The cost to develop a scheme is getting higher. The feed-in tariff was diminished over the past three or four years through digression, and eventually the Government decided to stop it altogether. At the same time, Welsh Government have removed the grant scheme for all privately run hydropower schemes, non-community schemes, without any consultation, discussion or any form of engagement. We were very grateful for the support that the grant scheme gave us, but it is difficult to comprehend how Government can support hydropower while at the same time taking away the very mechanisms they are putting in place to help support it.

Rob made a very good point about business rates. The way in which they are calculated is through the Valuation Office Agency, which deals with rates in England and Wales, but Welsh Government have the authority to define how they wish rates to be calculated for hydropower and the VOA

would have to enforce that. There are ways around this issue of business rates, but the challenge we have as an industry is that we have a lot of members who are very keen to maximise the generation opportunities but, if they are seeing 20% to 30% of their income being spent on business rates, where is the incentive for them to carry on generating? That is a critical point the Welsh Government have yet to address.

Q91 **Ben Lake:** I know other colleagues will want to probe you further on hydropower, but I would like to go back to Mr Proctor and ask whether he has any views on the smart export guarantee and how effective it is or is not in supporting smaller-scale renewable projects.

Robert Proctor: I would echo Simon's thoughts. I do not think it has been very effective. Basically, all it does is ensure that energy companies will buy power from schemes. It is better than nothing. You are guaranteed to have someone buy your power and pay more than zero for it. If you left things to the wholesale market, I doubt it would be that different. It does not provide much benefit to the community energy sector, either.

Q92 **Simon Baynes:** I am sorry I was late, but I had a question on the Floor of the House of Commons, which I could not avoid fulfilling. I want to move on to hydropower and tidal range. My colleague, Virginia Crosbie, will cover the tidal side of things, but I would like to look at hydropower inland. I declare a particular interest of mine as the MP for Clwyd South, through which the River Dee flows, particularly Llangollen, where we are looking at small-scale hydro projects. Also I grew up at Lake Vyrnwy, where the huge dam there has an unused hydroelectric unit in it, which used to provide the entire valley with power. In our part of Wales, particularly in north Wales, this is an underused asset. That is the background to where I come from.

How can hydropower be developed further as a source of renewable energy in Wales?

Robert Proctor: It is very difficult. Hydro at the moment, since the reduction of the feed-in tariff, is very difficult. With other impacts—Simon talked about the business rates—I would be very surprised if there are any hydro schemes that are economically viable at the moment. Simon may be able to tell me. Certainly it is very difficult to develop hydro schemes at the moment.

The big problem here, in thinking about hydro, is that hydro schemes have great longevity. They can run for years, and a lot of the schemes that were developed in Scotland—I do not know exactly how old they are—are 70 or 80 years old, or something along those lines. But we are looking for returns of investment over a 20-year period, and over a 20-year period it does not necessarily make sense to invest in hydro at the moment. If you start looking over a longer-term period, it makes a huge amount of sense to invest in hydro.

There are a number of opportunities. Many communities would like to develop hydro plants, and a number of them did when there was a feed-in tariff because Wales is very well suited to hydro. At the moment it is incredibly difficult. I am sure Simon will add a lot more detail. We need to look at the longer-term value of these schemes, rather than just looking at short-term value.

Simon Baynes: Mr Hamlyn, if I could put the same question to you, please.

Simon Hamlyn: A very good question it is, too, and very relevant. The challenge for the industry is how you develop new hydro schemes without the benefit of the feed-in tariff. If we remind ourselves, this was a guaranteed income over 20 years, based on kilowatts per hour generated. The idea was to help deploy renewable energy. It has been very successful. The challenge we have now is how you replace the element of the feed-in tariff in financing your scheme.

If you do the basic maths, up until the end of March 2019 the feed-in tariff for schemes up to 100 kilowatts was 8p per kilowatt hour. If you add on an export of, say, 4p, you could bill the scheme at 12p. That is quite generous, but without the 8p you are left with 4p, and you cannot develop a hydro scheme on the basis of those metrics.

We have been discussing a number of options for how we could look forward to new development. The only two options are very small scale, pico and micro—I know that BEIS have been looking at that, although I do not know in how much detail—or very large scale, having very deep pockets and getting exceptionally good price for your power over a long period of time because hydropower generates long after the subsidy has gone. The subsidy in this case would be the feed-in tariff over 20 years, but, as Rob said, we know of hydro schemes that have been going for 80 or 90 years with very little maintenance. You have long-term duration well beyond the subsidy period.

What we wanted Government to do was be inventive and look at ways in which they could continue to support the development of hydropower without the cliff-edge result of closing the feed-in tariff. What that meant was there was a massive stampede at the end of March 2019 to pre-accredit schemes that would benefit from their current feed-in tariff two years down the line, which was the timescale they had to build with.

You now have this issue where you have a huge number of schemes being built over a very short period of time, and the deadline for that, which we encouraged BEIS to extend, is the end of March 2022. At the end of March 2022 the development phase of hydropower, on the whole, will come to an end and therefore you are going to have a whole issue about how companies will continue without the development projects that they relied on. A lot of them are diversifying into other areas, but in doing so you have a much more crowded area of people looking at developing into other areas. That is the biggest challenge we face.

In addition to that, on the things we have talked about, such as business rates and charging schemes that are disproportionate to the amount of time that NRW, for example, puts into them, we have meetings planned with the current Energy Minister to look at how they could consider options going forward. One of the ways you could address this issue about further development is the Local Electricity Bill, which would allow local generation to be sold to local communities. That is something—as a councillor on Whitchurch Town Council—we are looking at very closely because there are a lot of businesses in the town that would benefit from buying power from our solar panels on our civic centre roof.

A very good question. I do not think anybody at the moment has the immediate answer. If I could find the answer for you, I would be very happy, but at the moment we are in this stalemate where we have finished one scheme and, at the moment, the Government do not plan to adopt any further ones.

Q93 **Simon Baynes:** My second question is more general and has probably been covered by what you are saying, but I would still like to ask it. What benefits can the development of hydropower offer Wales?

Robert Proctor: My area is community energy, and I would be keen to see more community-owned hydros being developed. The difficulty at the moment is that, if you develop a scheme, you are not going to make any profit on hydro so you are not going to have any community benefits from having done that. We need to create an environment where you can develop hydro schemes and create a profit. If you can create a profit, if it is in community ownership, you can reinvest that money in your community for a variety of projects. Most of our members are focused on decarbonisation, so looking at electrifying transport, supporting energy efficiency in people's homes and innovating, particularly looking at how you can use that energy locally and sell that energy locally. There is a massive opportunity.

The development of hydro schemes is going to create jobs in the development. A lot of hydro schemes use local contractors, and a lot of civil works can be done by local communities. Because there are a large number of schemes that have been developed already in Wales, you already have a supply chain in Wales that you can utilise.

The great thing about hydro is they will be generating for decades. I read something about the investment in hydro in Scotland, that although expensive to start with, it is almost giving free electricity now the return on investment has been paid off. Particularly as we are looking to decarbonise, it is a good long-term investment. Solar farms and wind farms, you have to replace them after 25 years or so. It is a great long-term investment. In terms of our decarbonisation, it is a great thing to invest in.

Q94 **Simon Baynes:** Again, in the Dee Valley there is the Corwen hydro community project, which you may well know. Basically what you are

saying is that the economics of a community project make them a little more viable in the sense that they do not have to make a profit. Obviously, if they did, it would be to the benefit of the community. Does that make them more likely, or is it not a relevant way of looking at it?

Robert Proctor: No, I do not think so, because the motivation for most communities to develop the project is to generate profit that they can then use as community benefit. They still want to create a profit, it is just how they use the profit is different. They want to use it to reinvest in their local community. If a scheme is not profitable, it is probably unlikely that many communities would take it forward because there is a huge amount of effort to do that, so they want to have some benefit from it.

Q95 **Simon Baynes:** Mr Hamlyn, on the benefits and the development of hydropower more generally. You mentioned the Local Electricity Bill, which was obviously tabled by my colleague, Ben Lake. I was pleased to be one of the cross-party Members supporting it. Just a general comment to finish my section of questions, on the general benefits of hydropower.

Simon Hamlyn: Rob has covered quite a few of them, but you have clean, green energy with very little CO_2 emissions that generates local economic activity, and the benefit to local communities, local businesses and local supply chains is significant. It lasts for a long time, and we have examples of hydro schemes that are up to 80 or 90 years old with very little maintenance.

Wales is blessed with topography that lends itself to the development of more hydropower. It is a great shame that we do not have the mechanisms to support us to allow that to continue. Hydropower, in its inherent sense, is good for local businesses and local communities, and we would be delighted to see more of it being built.

Chair: Is Virginia with us? She needed to pop out to be in the Chamber.

Q96 **Simon Baynes:** If not, I can quickly cover the next two questions. In many ways these have been touched on already. How can subsidy support for hydropower and, in particular, tidal range be improved? How have community-run hydro schemes been affected by the increase in business rates? These are issues that you have already touched on, so I do not want to overdo it, but maybe if we took the two together in terms of subsidy support.

Robert Proctor: On the value of community hydro, there are some great examples in Bethesda, Ynni Ogwen and Partneriaeth Ogwen. Partly as a result of the hydro project, they have used that income to invest in their community and develop all sorts of projects.

The key is that, as Simon said, 4p a kilowatt hour is not going to be enough of an incentive to develop hydro projects, so that needs to change. If we want to see more hydro in Wales, it is going to need to change. Whether that is through some sort of contracts for difference or

whether it is through some sort of tariff for hydro or community hydro, there are options on the table.

Business rates is a big issue. Community groups still get the grant from Welsh Government to support them with business rates, but obviously that is only community groups. It does not impact on the wider problem, which is how hydro projects have been valued as part of the business rates process. That is the big issue, because I do not think they are paying a proportionate amount of business rates, given the scale of their operations. That seems like it could easily be resolved, but it probably is not enough on its own to see the continued development of hydro projects in Wales.

Q97 **Simon Baynes:** Same question to you, Mr Hamlyn. You mentioned earlier that very large projects or very small projects might be viable, if I understood you correctly. Could you answer the general point about subsidies and business rates but also cover again that point as to whether there is any viability in extremely small and very large projects in the current environment?

Simon Hamlyn: The challenge is that the way in which business rates are calculated does not provide a level playing field compared with other renewables, such as solar and wind. Solar and wind, on average, pay about 5% of turnover in their rateable value. In hydro it is up to 30% in some cases, so there is a disparity in how these business rates are calculated. The Welsh Government commissioned a report into this very subject, which they have never published or commented on. That suggested the best route would be the prescribed assessment route for business rates whereby a business, such as a hydro scheme, is valued on the pounds per megawatt that it generates, and that would be its business rate. For example, it might say £50,000 per megawatt is the rateable value, so you have a megawatt-sized scheme, the rateable value is £50,000, you add a poundage and you pay half that. It is a very simple, effective, easy-to-understand way of calculating rates.

They ignored that recommendation, even though it was in the report they commissioned at taxpayers' expense, which is hugely disappointing. I made that point to Lesley Griffiths and her team. We still have yet to hear from her or her team about their thoughts on the recommendations that came out of that report.

Secondly, subsidies are still around for some schemes, through the smart export guarantee, but that does not benefit hydropower or small-scale renewables to any extent. That has been another disappointment, even though the Government lauded it as a replacement for the feed-in tariff when it was not.

I would like to see the Government be more creative in their support for hydropower, and we have plans to meet them to discuss their thoughts on how they can support hydropower, not only in Wales but elsewhere. That is some way off at the moment.

Your third point about small and large is a good question. On the larger scale, the theory is you can get more for your power and, therefore, that would offset your investment. If you had a very large scheme, say 2 megawatts, you would have to have deep pockets to build it, but theoretically you could strike a better price for your power over the longer term.

When it comes to small scale, the logic behind it is that the smaller the size the less expensive it is to install it, but you would have to be looking at pico-schemes of 5 kilowatts to 10 kilowatts. Even then, in Wales, you would have to pay the extortionate abstraction charge before you could even put it in the river. These are the barriers that we are constantly facing. At the moment, Welsh Government seem reluctant to discuss any of them at all.

Q98 **Geraint Davies:** I would like to draw our attention now to the opportunities from woods and forests. Gary Newman, can you give us an idea of the benefits of developing the wood industry in terms of construction, the economy and carbon storage?

Gary Newman: The drive to decarbonisation is going to require us to build very differently from how we have been building. We are going to have to use low-carbon materials, and that will be incentivised through all the policies that will come in over this next decade in terms of regulations on the operation of buildings and the embodied carbon impact of materials.

Q99 **Geraint Davies:** Explain what the basic idea is. Is the basic idea that concrete creates a lot of emissions and, basically, wood stores carbon? Is that basically it?

Gary Newman: That is the basic idea. Approximately 50% of the UK's industrial carbon emissions are associated with the production of steel and cement. You can see these are highly challenging materials, particularly to use in the built environment when you are trying to meet low-carbon regulations. The thing about trees is they suck carbon out of the atmosphere, and then the building acts as a storage depot for that carbon. It is not like storing carbon in geological timeframes, but it is storing carbon over a 50-year, 60-year timeframe at least. It is probably more like 150 years by the time you think about end of life and the ability to reuse timber and downcycle timber into chipboard and other materials.

Q100 **Geraint Davies:** What about the balance between absorption of carbon dioxide by existing trees versus storage? Obviously, once you chop down the tree it stops absorbing, but it does store the carbon in a way that it would not if you burned it.

Gary Newman: It does not really stop. If you think of it at a forest scale, once you have chopped down that tree it stops absorbing carbon, but the tree you replace it with in sustainable forest management—as practised throughout Europe, you cannot cut down a tree without planting another one—will continue to draw CO_2 from the atmosphere. It is only if you do

not harvest that the forest will stop absorbing because it reaches this equilibrium point. By extracting the carbon and putting it into buildings, you are continuing the ability to draw CO_2 from the atmosphere.

Q101 **Geraint Davies:** How does woodland planting benefit the renewable energy sector? I appreciate you are saying it helps the economy in storage of carbon, but does it affect the renewable sector?

Gary Newman: That is a whole interesting debate. The subsidy for timber as a renewable fuel has been very helpful to forest biomass up to a point, in that when you saw timber you get about 50% to 60% yield of sawn wood and the rest can go into other products like MDF or biomass for burning. There probably is a question mark on why we subsidise wood for burning, which is the least carbon efficient of the uses, and do not subsidise it for use in buildings, for example, which is the most carbon efficient. On the one hand it has been quite a good thing, on the other hand it may not last the test of time.

Q102 **Geraint Davies:** In simple terms, if you chop down a bit of wood and you put it in a house, obviously you store that carbon for the length of time of that house or longer, but in the event that you just burn it, you recreate the CO_2 and create a lot of toxic particulates. It is a big issue these days. I understand that wood burning is nearly 40% of $PM_{2.5}$ in urban environments. Would your recommendation be that, if we had a similar subsidy, we would be better off spending it on construction rather than burning wood?

Gary Newman: 100%. You can still use the whole of the tree for fibres for insulation and other markets, so you do not need to burn it at all. The Dutch Government are pulling out of that subsidy. I do not understand the ins and outs of the European regulatory frameworks, but there was a news article that came out yesterday. You are 100% correct that burning wood leads to pollution in the air. Burning in a biomass power station is slightly different from burning in a domestic situation, because you have different ability to clean the flue gases.

Q103 **Geraint Davies:** It is less problematic, is it, the mass burning in these huge Drax power stations or whatever they are? Obviously it is a problem with creating carbon, but not such a big problem to public health with all the problems you get from inhaling it. Is that what you are saying?

Gary Newman: Yes, 100%. There are some real anomalies in the GGR, the greenhouse gas removal regulatory frameworks or targets, because with bioenergy and carbon capture and storage, which is basically Drax, you can allocate imported timber on to your budgets, but with wood in construction you can only allocate homegrown. It is a slightly messy area at the moment.

Q104 **Geraint Davies:** In terms of the subsidies, you are suggesting that if you had a choice you would shift the subsidy from wood burning to wood construction, but is there anything else you would do? I am thinking particularly of carbon credits. You could get an offset and that sort of

thing for using wood in construction to displace cement, in particular, for wood when your are building public buildings or private buildings.

Gary Newman: Yes, 100%. At the moment there are no regulations on reducing the embodied carbon of construction, which is typically around 50%—it can be more and can be less—of the whole-life carbon emissions of a building, which is quite sobering when you think about it. This is the carbon that we are releasing now, not theoretical future carbon, which is the operational carbon emissions. There are no incentives at the moment to reduce the carbon we are releasing into the built environment. Globally, it is about one New York City every 20 or 30 days, completely unregulated.

We are looking at a private sector offset mechanism whereby, if you store carbon in a building, it is a viable offset that can be traded, but it is very early days on proving the economic value of that. I would much rather see very strong regulatory frameworks coming in.

Not to say use wood, which they are doing in France—they are saying in France that, by 2022, 50% of all public buildings must be made from timber—but rather to demand reduction in embodied carbon, which varies for all the material sectors, if they can demonstrate that they can decarbonise. That is the same for steel, use re-used steel rather than using new all the time, and cement, using low-carbon cements. Designing efficiently; there is no incentive to design efficient structures.

Q105 **Geraint Davies:** I have heard that, if cement was a country, it would be the third highest emitter of greenhouse gases in the world, and therefore there is an issue. I know we cannot sort out everything in COP26, but it is a global focus. Should one of the things that we think about in COP26 be how to shift towards carbon storage of wood in construction, in place of using energy, even at the margin, as best we can? Then we should perhaps try to persuade countries like Russia, which are highly dependent on fossil fuels, gas and oil, given they have such massive lands to invest in forests. From a global point of view, we can look at moving towards using more wood, but in the short term start with Wales. Is that what we are saying?

Gary Newman: A lot of countries around the world are investing in proactive afforestation policies, because it is the only advanced industrial material that you can use more of and decarbonise at the same time. That is just a simple fact. Therefore demand for timber is set to treble or quadruple. We are the second largest importer of wood in the world. It is a real problem for the UK as well as for other countries, but other countries are proactively going out and sorting it. Scotland is a little bit and Ireland has to a certain extent. Wales and England are not yet on board with the scale of opportunity that decarbonisation is creating.

We are in danger of an incredibly poor balance of trade: 85% of all timber that we use in construction is imported. It is going to get worse unless we proactively go out and plant trees.

Q106 **Geraint Davies:** There is a home market for Welsh-grown trees. Finally, some people have raised issues around diversity of planting, the fact that on certain terrains, like at the top of Welsh mountains, which people might want to walk on, it has recreational value and we do not want to cover it with conifers. People have said that sometimes with industrial woodland management you can inadvertently end up with soil degradation and a net carbon problem. Can you quickly deal with some of those?

Gary Newman: Like anything, done badly it does not deliver. A hydro scheme that does not work is not going to provide a return, and a forest that has been badly conceived and delivered might make the carbon situation worse. Planting on peat, for example—there is a huge amount of carbon stored in peat—you will have, certainly over the short term, a significant carbon release. It is not allowed by regulations. That will not happen.

There have been some stories out of Ireland recently, which is a peculiar situation to Ireland, where over a 10-year period there is a danger of more carbon being released from the disturbed slightly peaty soil than has been sequestered from the trees. You definitely need to consider the whole system: the land, the tree and the building. It is slightly complex, but there is no doubt that productive forestry, when you consider the soil, the land, the buildings and the use of the materials, is the most carbon efficient. If you look at any one of those three in isolation, you maybe come to a different story.

In terms of landscape change, it is a challenging one because our perception is of a degraded, bare landscape as natural and an afforested, coniferous one as unnatural or foreign. I do not think the tops of mountains in Snowdonia should be covered in conifers; I live on the edge of Snowdonia. It could be allowed to regenerate naturally by reducing the density of the sheep population, and I think that would be accepted because it would emerge over time.

Slightly lower down, the land—it is land classification 3B and 4, which is becoming increasingly marginal for agricultural grazing—is very suitable forest land for the fast-grown, productive trees that industry needs. All the advanced industrial materials in the construction sector are conifers.

People see it as an old industry, but it is not even seen as an industry in Wales, whereas steel is. Steel is great, it is an industry, and so is timber. For Stora Enso—the big Finnish timber company, with an €8 billion turnover—70% of its revenue comes from products that it did not make 10 years ago, so you are talking plastic replacements, chemicals, construction materials, concrete alternatives in high-rise buildings, cross-laminate timber. This is a rapidly moving space, and we are not on board yet in the UK.

Q107 **Geraint Davies:** Obviously Mr Newman is the expert on wood but, Mr Proctor or Mr Hamlyn, are there any comments you wanted to make on

wood, the opportunities or problems?

Robert Proctor: We think about the energy hierarchy, and the first thing is to reduce the amount of energy that is required. We need to think about that in our production of materials, and reduction should be our first priority. If we think we can carry on consuming to the level that we currently consume and just change the product, we are going to cause as many different problems down the line—that is important to be aware of—and it is the same with energy. We cannot solve our problem by generating more energy; we need to reduce the amount of energy that we are using. That is an important thing to bear in mind with any solution that we come up with.

Q108 **Geraint Davies:** Mr Hamlyn, obviously less energy but more wood in our homes would be good, wouldn't it?

Simon Hamlyn: Yes, and I would agree with Rob and Gary on their assessment. It is not my area of expertise, so I will leave it to the experts.

Q109 **Chair:** We have covered all the ground that we had planned to cover in this session, but are there any other comments or points that our guests would like to make before we bring proceedings to a close? We have had quite a wide-ranging discussion this morning, and it has been fascinating.

Gary Newman: There are a couple of things I forgot to say. One is that NRW, which manages the Welsh Government Woodland Estate, has a tremendous opportunity to play a proactive role in enabling community-based projects by leasing areas of forest to communities, by selling or somehow transferring ownership, or by allowing access that would provide an economic scale of timber to facilitate community-based enterprises, which is starting to happen. That should be massively encouraged.

The other one is that we are working with the social housing community to encourage them to invest in afforestation for all sorts of social value reasons, but also for their decarbonisation to demonstrate meeting carbon neutral targets. They are interesting in the social housing world because they can access quite a lot of money. They are not interested in making a profit, but they are interested in a safe place for a particularly long-term investment. It is a comment to Rob, that it might be worth our having a conversation about what role they could play in the renewable hydro area because it seems like there are similarities in the business models. The housing associations have 100-year business models. When you think there are 30 of them in Wales and some of the bigger ones have 30,000 properties on their books, they can access a lot of money very cheap and they exist for social good.

Simon Hamlyn: When we submitted evidence to the Welsh Affairs Committee we did it under two names: the British Hydropower Association and the Tidal Range Alliance. I wanted to make the point that there is huge potential for tidal range in Wales, which I am sure you will

be aware of. There are two or three projects that are on the books in Wales—one of which is North Wales Tidal Energy—and we are meeting the Energy Minister on Monday to put forward a proposal for a £20 million base-level assessment fund to help Governments understand the benefits of tidal range in greater detail and the metrics behind it.

I would like your support for that process, because it is fundamentally important. If you want flexible and predictable power to support National Grid, using tidal range is an essential part of that process. Just as an example, the North Wales Tidal Energy project, if it goes ahead, would be an investment of £7 billion in the local area. It would generate about 22,000 jobs and, importantly, as well as generating predictable power, it would protect coastlines through coastal protection. In that part of north Wales we have seen that the erosion of the coastline over the past 100 years is quite significant.

It is an important part of what we do within the British Hydropower Association, and the Tidal Range Alliance was launched in January 2019. We have made significant progress with projects in both England and Wales. We are seeing the Minister on Monday to talk about this base-level assessment fund, which was detailed in our submission.

Robert Proctor: One of the things I would like to do is give you a story about one of the community energy projects in Wales to highlight the value of the community energy sector. A project I like to talk about is Awel Aman Tawe, which is a charity set up in the Amman Valley in the Neath Port Talbot local authority area. It is looking to regenerate that quite deprived part of Wales, a former coalmining area. They spent many years—battles—eventually managing to develop a 4.7-megawatt wind turbine, raising over £3 million through a community share offer and several million through borrowing as well. It is the largest community energy scheme in Wales.

Since developing that asset, they have been able to use the income from that project to develop a number of other projects in and around the community, and in Wales more broadly. It has also set up another co-operative—Egni Co-op—which has just completed the largest rollout of rooftop solar in Wales. Not just community solar, but over 4 megawatts of rooftop solar in Wales, many on community buildings, schools and other public buildings, which is providing cheaper energy to those buildings, so having that additional benefit.

It has also used some of that money from the wind turbine to lever in other forms of investment, through European funds, but also through community facilities—I cannot remember, the something programme—and it bought an old school and is looking to develop energy efficient homes on the school, looking to use it as an energy education centre. It is looking to set up a community-owned electric car club in that area. It demonstrates the value of that one community asset that it was able to develop. It is what it could do afterwards that is the key thing. It is not

about that one asset, it is how it can then use that asset and the income from that asset to develop many other projects, which are all focused on decarbonising and supporting the local community.

That is a good example of the power of the community energy sector. There are opportunities with woodlands, with the Skyline projects, another great example of releasing that land asset. I am involved with energy assets, but it is that land asset to enable communities to take control of their future and deliver a decarbonised world. That is a good story to be leaving with.

Chair: Thank you all. It has been a very useful session this morning. My thanks to my fellow Committee members for their interest and their contributions. I will bring this meeting to a close.