HOUSE OF COMMONS

# Welsh Affairs Committee

## Oral evidence: Energy in Wales, HC 479

Wednesday 4 December 2024

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Watch the meeting

Members present: Ruth Jones (Chair); David Chadwick; Ann Davies; Ben Lake; Llinos Medi; Andrew Ranger.

Questions 1 - 31

### Witnesses

I: Jessica Hooper, Director, RenewableUK Cymru; Jay Sheppard, Project Manager, Marine Energy Wales; Joe Rossiter, Co-Director, Institute of Welsh Affairs; Benedict Ferguson, Co-Executive Director, Community Energy Wales.

II: Eleri Davies, Head of Onshore Development: Wales and England, RWE Renewables; Ffion Davies, Welsh External Affairs Manager, EDF Renewables UK & Ireland; Emily Hinshelwood, Co-Founder and Creative Director, Awel Aman Tawe.

# Examination of witnesses

Witnesses: Jessica Hooper, Jay Sheppard, Joe Rossiter and Benedict Ferguson.

Q1 **Chair:** Good morning, everybody, and thank you to the witnesses for joining us this morning. This is an oral evidence session of the Welsh Affairs Committee looking at energy in Wales. I am conscious that this is a very broad topic, so we will focus today primarily on the most pressing barriers to renewable development in Wales at the moment, and how GB Energy might influence development in Wales.

I am very conscious that this is just the beginning. It is almost like a taster session of where we are at in looking at energy in Wales. Please do not think that it is the end. It is very much part of our bigger look at energy as we go through next year.

Before I ask our witnesses to introduce themselves, I am going to ask Members to declare any interests that they may have that are relevant to today's session.

**Ann Davies:** I am co-chair of an anti-pylon group in Llanarthne, which is in Carmarthenshire.

Q2 **Chair:** May I welcome, on screen, Jessica Hooper? In the room, we have Jay Sheppard, Joe Rossiter and Benedict Ferguson. I would like you to introduce yourselves very briefly, just with a one-liner to say who you are and why you are here today.

***Jessica Hooper:*** I am Jess Hooper. I am director of RenewableUK Cymru. RenewableUK is a trade association of about 500 members representing wind, tidal and, crucially, supply chain. We work across borders, hence me being director of the Cymru office.

***Jay Sheppard:*** I am project manager at Marine Energy Wales. We are the industry representative body for the offshore renewable energy sector in Wales. We have a diverse membership of about 100 organisations that are working to develop projects and be part of the supply chain for Welsh offshore renewable projects.

***Joe Rossiter:*** Good morning. I am co-director at the Institute of Welsh Affairs, which is Wales's leading independent think-tank. We have worked on energy for almost a decade now.

***Benedict Ferguson:*** Good morning—bore da. I am Benedict Ferguson. I am co-executive director of Community Energy Wales. We are the industry body and the voice of the community energy sector in Wales. We have around 50 members, most of which are community energy organisations. They are not-for-profits that have developed and built, and own and operate, renewable energy assets in local places and return 100% of the profits from those assets to the community.

Q3 **Chair:** Thank you very much. I should have said at the beginning that my name is Ruth Jones. I am the Member for Newport West and Islwyn, but I

am also Chair of this Select Committee, which is why I am sat here.

I am going to start off with a question to Jessica and Jay. Could you outline the key barriers that prevent the expansion of large-scale renewable energy capacity in Wales? We are talking about large-scale off the east coast of England. What are the barriers that are stopping us going through it in Wales? Is it just that these challenges are unique to Wales, or are they part of a wider picture? We are worried that Wales might miss the boat, so we might miss the benefits of GB Energy because of these challenges.

***Jessica Hooper:*** There are a number of key challenges that we face as a sector, unfortunately. First and foremost, we have to mention grid. I would then mention public perception and support—hello, Ann; it is good to see you again. There is a key link between public support and grid that we will probably touch on. From a Welsh point of view, I would probably mention consenting as well.

Those three challenges are strategic in their nature, and they affect all renewable technologies coming forward, unfortunately. The fundamental one that underpins it all has to be grid. You asked whether it is unique to Wales. Grid is by no means unique to Wales. The most unique aspect for Wales is that two thirds of the country does not have any transmission grid, and that is fundamental for getting clean, green electrons away.

We see a role for GB Energy in potentially incentivising development where grid constraints mean that projects are not coming forward. There is a strategic line, catchily named PSNC, which would join the north and south coasts of Wales, coming through mid-Wales. The role of GB Energy is, potentially, to support projects in mid-Wales and improve the business case there, thereby increasing certainty and likelihood of projects for NESO and National Grid to make the commitment to bring that transmission network forward.

If I touch on public perceptions, there was a very good report produced by Public First on the role of GB Energy. It goes into quite a bit of detail around how public support tends to increase if the public sector is involved, so there is potentially a fundamental role for GB Energy here in targeting partnerships with projects where we want to drive the public support envelope. If we can increase community support through a public company that is maybe seen as a more trusted body, and move away from that very strong perception that energy is extractive, through national ownership, coupled with a key role in championing domestic content, there is a very real opportunity to enhance public perceptions of renewables and bring them forward more quickly.

Thirdly, consenting is probably not unique to Wales, but in terms of the aspects that we are touching on today around onshore and nearshore projects, the consenting parameters are almost entirely devolved. Anything up to 350 MW sits within the Welsh Government's remit. While

we are seeing increased efforts to address resourcing constraints, they do prevail and will continue to do so for the foreseeable future.

That is linked both to resourcing of our consenting bodies and, indeed, the Welsh Government, and to policy interpretation, where we are seeing a lack of clarity of policy. How we, as a sector, can take policy specifically relating to peat, for example, and utilise that in our consent applications is not clear. Unfortunately, peat is probably going to be a problem across the UK. It is not going to be unique to Wales, but the way in which we are seeing policy brought forward in Wales is potentially unique. If you compare the Scottish roll-out of policy specific to peat, it is quite different from that in Wales. Renewables are afforded priority status in Scotland, whereas in Wales we are not seeing that, so a unified Welsh Government/UK Government drive to enhance the priority of renewables would be fundamental in enabling that.

Q4 **Chair:** Thank you, Jessica. That was a very comprehensive answer. Jay, do you have anything to add to that?

***Jay Sheppard:*** I would echo a lot of the points that Jess made, but perhaps provide a little bit more context from the marine renewable energy sector. As we have already talked about, grid is a big issue. There is perhaps a geographic nuance there, in that we know where the resource is for tidal, for example off the Welsh coast. There are potential deployment zones off the coast of the Llŷn peninsula and off the coast of Pembrokeshire, where we just do not have the grid infrastructure on the shore side in order to bring that energy ashore. There needs to be targeted investment close to deployment zones to ensure that we can bring energy back ashore.

Environmental consents, with this being devolved in Wales, add an extra layer of complexity. It is a time-consuming process that adds a layer of risk to developers. GB Energy, through the Crown Estate partnership, has the potential to help de-risk that process and reduce costs and time for developers, if it were to ensure that there was some environmental baseline evidence gathering pre the lease process. The developer could then take on a lease and progress through the consents in a much more timely manner, with a lower risk of delays or setbacks as part of that process.

Access to private finance is another challenge for many of the marine renewable energy developers in Wales. We know people who are trying to develop projects and are looking for anywhere between £4 million and £30 million of investment. There is a bit of a mismatch there between the institutional finance offerings that are available, in that you need to be applying for at least £30 million to be worth the due diligence to attract finance through UKIB, for example, so perhaps there is a role for GB Energy to play in bringing in seed funding. From our engagement with prospective investors, they want to see a major equity investor come on board first in order to incentivise debt finance, so GB Energy could play a role in attracting further investment into some of these projects.

I would like to present the Morlais project as a bit of a case study. Some around the table will be aware of it already. Through major investment from both the European Union and the Welsh Government, we have a tidal stream zone where we have the grid substation already developed and the environmental consents already in place. This provides an offering to tidal stream developers where there is reduced cost and reduced risk in getting their technology in the water. This is a model that could be replicated, with additional funding, to support floating offshore wind, tidal range and wave energy projects in Wales as well.

Q5 **David Chadwick:** I have a question for Jessica and Jay. A number of leading Welsh academics and political commentators—Will Hayward is just one example—have written quite extensively about the potential rewards from tidal energy, and believe that Wales is ideally placed to be the starting hub for this industry. Do you agree? Are we missing an opportunity there? Generally, how do the benefits from onshore wind compare to the potential benefits from tidal energy?

***Jay Sheppard:*** Are we talking about tidal stream or tidal range, or both?

**David Chadwick:** Both.

***Jay Sheppard:*** For tidal stream, we have seen quite a few projects developed around the UK already. Quite a few have been deployed, particularly in Scotland. Historically, we have seen tidal stream projects delivered with anywhere between 80% and 100% UK content, compared with about 20% for wind. That means that, on average, we will see four to five times the level of socioeconomic benefits per pound spent on tidal compared with wind. We make a lot of this kit in the UK, whereas a lot of the wind supply chain has been developed in places such as Denmark and Germany. At the moment, we have a first-mover advantage in the UK. If we invest in and support these projects now, we are going to see large economic benefits and, potentially, export the technology globally as well.

For tidal range, we have massive resource, on both the north and south coast of Wales, but particularly in the Severn estuary, which has the second highest tidal range in the world. That area is ripe for development and can provide clean, predictable power very close to major demand centres as well.

***Jessica Hooper:*** I would add a couple of things. Onshore wind is not doing so well on the socioeconomic benefits side of things. The fundamental thing there is that they are shovel-ready projects. They can deliver between now and 2030. Tidal, in reality, is not going to come in, in significant proportions, until the 2030s, and similarly for floating offshore wind.

I would also say that, as an emerging technology, floating wind carries a lot of potential advantages for us becoming a global leader. We already have more projects in UK waters than anywhere else in the world. Harnessing that as a possibility and bringing it forward takes it slightly

away from your question, but there are strategic links there in terms of harnessing and anchoring opportunities in Wales that we can capitalise on.

I would also mention that there is a fundamental link here through our port infrastructure. Port infrastructure is going to be fundamental to getting any kit offshore. We have seen some investment, but a lot more is required. There is a real opportunity for GB Energy and the National Wealth Fund to potentially direct funds into Welsh ports. Both north and south Wales have ports that are already experienced in some of this, or that have significant capacity to support emerging technologies going forward.

Q6 **David Chadwick:** So onshore wind is shovel-ready but not as good.

***Jessica Hooper:*** Onshore wind is shovel-ready. It probably does not deliver the supply chain benefits at the scale that Jay referenced. The fundamental thing to note is that we are already delivering community benefit funds into Wales of approximately £6.5 million per annum, but the potential pipeline that we see represents a £20 million opportunity of community benefit funds coming directly into our communities in Wales.

***Jay Sheppard:*** Just to come back on the timescales for tidal, and just to clarify, we have 38 MW of tidal contracted to be delivered by 2029 in Wales. That is quite small when we are talking about the net zero transition, but that is expected to grow and expand well into the 2030s. I will caveat any concern that this might not be delivered until the next decade. We are at that embryonic stage of the industry now, where support will really help build and maintain those supply chain opportunities as tidal stream grows.

***Jessica Hooper:*** Just to add a socioeconomic figure there—

**Chair:** Sorry, Jessica, I am going to close you down there, because I am conscious that we have a lot of questions to get through. I am going to hand over to Andrew Ranger.

Q7 **Andrew Ranger:** I would like to move on to look at how community energy plays into this. The UK Government are committed to making Britain a clean energy superpower, and the Welsh Government are aiming to achieve 70% of their energy consumption from renewables by 2030. Just how much of a role do you envisage community energy playing in reaching those targets? What are the challenges that it faces in developing those projects at pace?

***Benedict Ferguson:*** Some of the wider key challenges that we have heard about, such as grid connection and planning, tend to be compounded for community projects, because we have less choice about where we are. We cannot spread risk across a portfolio and we cannot choose where our community is. We have to find those renewable energy resources, find what the grid looks like there, and connect to that.

We have the state of the sector report coming out this year, which is starting to find evidence of how pinched the market conditions are for the community sector. We are not able to compete for rents against other activities on land, such as forestry, where land falls within LDP allocations for housing, and that sort of thing, so there is competition there.

In terms of market conditions, we had feed-in tariff. Most of our members that have projects now built them in the time of feed-in tariff. That is where the profitability comes from. Since then, we have been really stuck and are in a bit of a chokehold in the market conditions. Whereas larger projects and projects at scale might have access to CfDs, we do not have any subsidy support, and we have those compounded problems with grid. We are seeing issues in the grid queue, for example, where GB Energy might help to support the idea of a bit more flexibility from the DNOs around communities placed in the grid connection queue. I will come back to that point around consistency of support.

There is another perspective on grid. We see it from the other end. We are looking at distribution. We are often connecting to distribution. Yes, there is a very serious barrier to getting large-scale generation connected to transmission so that it can come down, but if our decarbonisation pathway is moving towards large-scale use of electrical power for heat and for transport, as well as the traditional power that we are using, we have a real problem with getting that down the distribution network to users. We really feel that the role that community energy has there is in mitigating the risk of that decarbonisation pathway with local energy trading, so that we can get balancing benefits, and we are very close to having good market conditions for that.

GB Energy could certainly support Ofgem to adopt Elexon's modification P441, called "creation of complex site classes", which will allow for local energy trading. That will help us to start building multiple generators behind substations that can connect to customers. They can then give customers a cheaper price for their energy and receive a higher price than market for their energy. Then we can finance more projects and start to really scale them up, and create a virtuous cycle. As more demand comes online, we can bring more generation online, balance that behind a substation and reduce the impact on the infrastructure pathway in terms of both the cost and the time risk. We feel that it is really important to get support for Ofgem to adopt P441 and get that going.

There will be a problem, coming after that, for licensed energy suppliers, which will have a challenge with resourcing facilitation of those markets—doing the balancing and settlement, and creating the billing structures for that. We have some support in some pilot projects, but they have not scaled up quickly enough. There could possibly be some support in investigating the costs to licensed energy suppliers of investing in and setting up those systems, and possibly some kind of floor price mechanism that supported local energy trading for a start-up phase while

we got that up to scale. That is the most important thing that we could do.

Frankly, business as usual is going to keep community energy in a bit of a chokehold unless we can create better market conditions. Our members are doing all sorts in the way of innovation. They are showing a lot of resilience and flexibility, looking at smart local energy systems, working with Ynni Cymru around that, and looking at private wire solutions and behind-the-meter solutions, but they really have to be opened up for us to get to scale. If they are, the targets that we currently have are not nearly big enough, and we should be much more ambitious.

We can really start to dig into fuel poverty, if we can provide cheaper energy, and we can really start to dig into that piece that has been referred to already about a degree of pushback against the net zero agenda—communities feeling left behind and forgotten, and feeling that they are not seeing a direct benefit to them now from all of this action on climate change. Local energy markets can give them that agency, that value from their smart meter, and the ability to make informed use of their own data that they are generating.

**Chair:** Thank you very much for that. Before Mr Rossiter comes in to answer, can I just make a plea for briefer answers? We have to finish this session at 10.50 am. I am conscious that we have a lot of questions to get in, so if we could be brief, that would be really helpful.

***Joe Rossiter:*** Just to zoom out a bit, one of the great, positive things that this renewable energy transformation is meant to deliver is a decentralisation of where we get our energy from. Community energy has a key role to play, and not only in getting people on side for this transition, whether that means getting involved in community energy themselves or tangibly benefiting from the transformation. We need to see those positive community benefits fairly quickly if we are going to deliver at such a pace. There is also the economic redistributive element of community energy. Giving people a bit more of a say and agency in what their energy futures look like is a really powerful thing.

In terms of the role that GB Energy can play, at the moment it is doing all things to all people, because everyone can see bits of it that they think are really positive. It can talk to those, but it can have a key role in trying to support community energy projects, for example. It is not necessarily just enabling the initial finance for large-scale projects. It is also the other side of things, in terms of investing in a way that Welsh Government cannot for those small and community projects.

Q8 **Andrew Ranger:** Slightly changing the context—this is for Joe and Jessica—we have GB Energy and Ynni Cymru. Is there a risk that there might be some duplication there? What are the best ways that the two Governments can work together to make sure that they hit the targets and get a successful roll-out across both countries, or the whole country? How can any risks of that duplication be averted?

***Joe Rossiter:*** Touching on the lack of understanding of what GB Energy is at the moment, even moving from a manifesto commitment through to something that is tangible and deliverable is a step. At that point, it has come from, "This is going to be a publicly owned renewable energy developer," to something more approaching a wealth fund that enables the private sector to get on board and de-risk some of those larger infrastructure spends.

On how it can work with the Welsh Government, it is critical not only that the Welsh Government have a voice, but that there are deliverers in the room and it is not just political representation. There is value in having the Secretary of State for Wales in the same room at Cabinet meetings and when the mission board are discussing these projects, but equally, you need Welsh deliverers of policy in some form, not just the politicians. That is critical.

In order for GB Energy to be successful, we need a sharp focus. We need a well-defined mandate and strong governance that respects that. The energy pathways in different parts of the UK will look very different and, indeed, should look very different in order for people to meaningfully benefit and for different nations of the UK, and even regions within nations, to have a different direction of travel that suits what the population want.

***Jessica Hooper:*** I have a couple of points of clarity. Ynni Cymru has a very strategic focus on community projects. The Welsh Government have also pursued Trydan Gwyrdd Cymru, which is probably more equivalent to GB Energy. We would really advocate for close working between TGC and GBE, but also, as Joe mentioned, working with the Welsh Government to ensure that there is not duplication and competition.

There is a real opportunity for the interaction between GB Energy and the organisations that are already set up. The Welsh Government would be keen for me to say that Wales feels that we are ahead of the game with a lot of the groundwork and foundations that have been laid in this area, and working with those and bringing more money into them is going to represent greater opportunity for Wales and Welsh people. It is potentially going to deliver more megawatts on to the grid more quickly. Wales is in a really good position, but potentially needs more help with delivery on the ground.

A lot of work has also gone in to understanding electricity demand across the Welsh Government, and how we match up the understanding of the supply opportunities and the necessary infrastructure support will be fundamental in the two of them working together to bring projects forward, as I touched on in my first answer.

Q9 **Andrew Ranger:** Just to flip it on its head slightly, is there an importance that they should also differ in their approaches to cover more ground?

***Jessica Hooper:*** As Joe alluded to, we do not have that much clarity on GB Energy's role at the moment. There is an opportunity for really clear strategies and portfolios that can be well understood by the market. The point of interpreted differentiation to date has been that TGC is more focused on developing its own land. We are anticipating that GB Energy will be more open to working with the private sector to bring projects forward.

Those sorts of ownership models are not unusual in the sector, so the private developers that we already have in Wales will be very comfortable with that as a model and working in JVs. Leveraging the funding that has been set aside for this, you are going to need to work with the sector to really maximise it and get those multiplier effects. It is where the experience currently is as well.

***Joe Rossiter:*** Can I just come in with one thing that you sparked off in me? It is quite interesting that one of the key things that has been delivered initially from GB Energy is this partnership with the Crown Estate. That is quite an interesting one, in that the Welsh Government position is that they are calling for the devolution of the Crown Estate, as is the case in Scotland. That is the first programme that GB Energy has committed to. Co-investing is an interesting one when you think about what that means for the collaborative approach between Governments.

Q10 **Ann Davies:** My question is about community benefit. I will ask Joe and Ben this, but any of you should feel free to come in. Let us be frank—the days of community benefit, with companies sponsoring rugby shirts, for example, as much as that is appreciated throughout Wales, are over. We need tangible benefit for people and for communities. For me, one of the most tangible community benefits would be to put transmission cables underground rather than having pylons. That is a personal view, and I accept that it is not everybody's view.

What I want to know is how you see a tangible benefit for the communities in Wales that have not only the wind farms, but the pylons that are coming through the valleys.

***Joe Rossiter:*** I agree that community benefit funds have been one way to date of ensuring that there is some link to a community benefiting. However, the way that they are delivered is different for different projects. The governance is different between different projects. We would like to see a bit more of a tangible commitment to communities that are the sites of renewable energy infrastructure, especially when some of the communities in Wales that are suffering from deep fuel poverty also bear the scars of previous extractive energy generation. You need to make sure that there is a tangible community benefit.

From our point of view, what that looks like is trying to put conditionality into the contracts that you engage in with the larger renewable energy developers. What that might look like is tangible ownership, so that people feel it in their back pocket when a renewable energy project

comes online. It is about ensuring that communities see some form of money come into their back pocket, by ensuring that they have some degree of community and local ownership, that they get some percentage of the profits that these companies are getting over the medium term—and also that some money comes back into the public purse and is reinvested in Wales. There is a risk at GB Energy that that gets siphoned off to a bigger wealth fund. That money should stay in communities and stay in Wales, to ensure that we can invest more in other renewable projects, whether that is through Trydan or through incentivising other community energy projects. Reform to that agenda is very much on our agenda, and that is what our "Sharing power, spreading wealth" report outlines.

***Benedict Ferguson:*** I agree with lots of that, and that is where Ynni Cymru is in many respects. We have been looking very recently with Welsh Government officials at the sector deal. They are reviewing what community benefit and shared ownership looks like. We have undertaken a review of all projects that have gone into the planning system since the shared ownership policy was announced, and there is really quite a poor level of engagement across the piece when you look at the number of developers that are achieving what we think is the gold standard of having a signed agreement in place by the time you go to planning.

There are some good examples, and we have been working on that in partnership with Eleri, who you have on your next panel. We want to highlight the good examples. GB Energy has a role, if it is becoming involved in shared ownership, along with Trydan, in setting a gold standard around all of this.

Traditional community benefits are incredibly inconsistent, and there is no real standard set around them. A £5,000 per megawatt figure gets bandied around, with various dates on it, from 2013 backwards. It is a really unhelpful figure for everybody, because the market is constantly changing. The profits are not well understood in these projects. There is not a lot of transparency around that, or an understanding of what level of extraction of profits is going on. Let us bear in mind that it is not the energy that is extracting; it is the money system and the way that we run that. We are all trying to do good projects and deliver better projects, if we can. It is possible that a percentage is more helpful in terms of community benefits, so that you can cut across different technologies and different market conditions as they change.

That might have more durability, but we need to get a level set. There is a strong case for looking at a slice of that going into some sort of wealth fund that is really focused on reinvestment in communities and gets more assets into local communities that are held in the long term. That is building the small-to-medium projects as well as getting those shared ownership pieces.

***Jay Sheppard:*** Community benefit funds are really important, but I would caveat some consideration about mandating these for emerging technologies such as wave and tidal, which are quite expensive at this point in time. Developers are working really hard to bring those costs down to make them more commercially viable, but community benefit funds at this point in time risk inflating costs and may deter things like supply chain investment. For emerging technologies such as wave and tidal, we should be focusing on maximising and maintaining the socioeconomic benefits of developing these projects with high amounts of local employment and supply chain content.

***Jessica Hooper:*** Just to put a sector perspective on this, as a sector we hear you. We understand the need for community benefit and engagement. As Ben alluded to, there are some really good examples of community engagement that we are seeing. RWE was referenced, and you will hear from Eleri later.

What we will continue to emphasise is that community benefits and how we engage with communities have to remain flexible, transparent and proportionate. Ben touched on the fact that market conditions are affecting how profitable these projects are. There is a need to acknowledge that we do not want to make Wales any less attractive than anywhere else in the UK. If we put in specific stipulations in Wales that make it less attractive to pursue projects in Wales, those projects will not come forward, and communities will not get any advantages anyway.

As Jay touched on and has been alluded to, there are socioeconomic benefits that we can touch on that will come from these projects. To tie this back to an earlier point, where we are talking about 20% as opposed to 80% or 100% coming from emerging technology versus onshore, the reality is that 20% of a 9 GW or 3 GW pipeline is going to be that much more substantial in delivering socioeconomic benefits into these peripheral economies, which is where a lot of this activity is destined to happen.

Q11 **Llinos Medi:** I want to follow up what you just said, Jessica, about mandating and making Wales less attractive. I have been in communities where companies have offered different amounts of money on two different nights. The behaviour in these communities of some companies is quite alarming. We do need something in place to protect our communities, because these companies are coming in and benefiting from our natural resources, but they are not behaving in the best manner in these areas. What would you say is the best way that we can make sure that communities are protected and that we are not restricting development in Wales by doing so?

***Jessica Hooper:*** There is a lot to be said for community engagement. It is a real testament to Community Energy Wales and its engagement with projects and its understanding of it, working within the structures that we have. A gold standard is not a bad example. It is just about making sure

that the standard that we set relies on the principles of flexibility. Transparency is fundamental.

You referenced there two different figures. I agree that that is only going to confuse matters, but ensuring that it is proportionate to the project that is coming forward and that the engagement is open and honest is going to be fundamental. We have really good examples across Wales where projects and developers are engaging properly.

***Joe Rossiter:*** There is a recognition that different parts of the UK are in competition for business at the moment, and GB Energy will understand that, but there is that balance between incentivising rapidly accelerated renewable energy generation, and not having a race to the bottom in standards, whereby the part of the UK that puts in the poorest elements of redistribution gets all the money. There is a balance to be had.

Q12 **Ben Lake:** I am going to continue very briefly on that point that Mr Rossiter made. In this discussion of how we balance some of the restrictions or conditions that we might want to place on developers, in the back of my mind I am thinking that we do not want to sell the family silver in all of this, either. Are there any examples globally of countries or, indeed, jurisdictions that strike this balance more effectively?

To the point that a few people have made about the possibility that GB Energy could act as a vehicle that consolidates a whole range of the sector's community benefit funds, for want of a better way of putting it, for more strategic investment, are there examples across the world that you might want to reference?

***Joe Rossiter:*** In the report, we look at Denmark as a good example, but it is a fairly different environment, in that there is a lot more publicly owned energy generation. In regard to the wealth fund, everyone loves to spout Norway as the gold standard, but that pooling money from fossil fuels boat is gone now.

However, there is merit to this wealth fund approach. There is a balance between community benefit funds and mechanisms of compensating for the costs of housing renewable energy generation in a certain area, and pooling that money in order to do the larger acceleration of renewable energy generation. It is about a balance, where those communities that house it get some tangible benefit, but this is a green economic transformation and we do need to give the Welsh Government and the UK Government greater funds in order to accelerate the transition. It is both of those things, and the wealth fund approach, with a community benefit fund/percentage chunk to communities, is an approach that could work and has worked internationally.

Q13 **Ben Lake:** Do we need to have a discussion about what we mean by community benefit? Mr Ferguson, you referenced a review that the Welsh Government are undertaking. It strikes me that different technologies will have different merits, different advantages and also different community

costs. Is there any work across the world—or perhaps the Welsh Government are doing it, to their credit—on trying to come up with a universal metric that weighs the pros and cons of every technology, which might be socioeconomic benefits in terms of local jobs, both for the construction and then for the longer term, or might we need to look elsewhere across the world for inspiration?

***Benedict Ferguson:*** I cannot come up with any great examples from across the world. You have examples of where access to subsidy mechanisms requires shared ownership. The Republic of Ireland is an example of that.

Consistency is really important. What we are looking at here in terms of extraction is financial extraction. There is a value and a profit to be made in these activities. If we want our money system to support and back people, and build stronger, more resilient communities, rather than only to avoid the impacts of climate change, there is a discussion to be had about a fair share to come out of making a profit out of the sun, the wind and natural resources. We just need to be honest about that to start with, rather than trying to go round the houses all the time.

Consistency is really important for the community sector in terms of support and delivering projects, and for the wider sector. GB Energy has a great role to play in engaging with different nations across the UK, bringing them together, and getting a really consistent gold standard leadership on this.

Just to go back to the point that I made about percentages, first, that can really help us focus on the issue, which is sharing the profits and the benefits with society. We should all be proud of aspiring to that. The other thing about a percentage is that it means you can cut across differences in market conditions, as well as locational, subsidy and technology differences.

Q14 **Ann Davies:** You mentioned Denmark, which is really interesting to me, because Denmark undergrounds all of its cables—the 400 kV, the 275 kV and the 132 kV. The whole lot go underground. We are very aware at the moment that the Welsh Government, in fairness, have commissioned an independent advisory group, which is looking at the costings of cable plough and open-cut undergrounding versus pylons. Three groups of costings are going on there.

We do not know what the result of that piece of work is going to be, but where does that sit with GB Energy's and Ynni Cymru's plans? Where does it sit if the IAG comes out with costings that are comparable, say, for cable ploughing and pylons? How would that affect policy between GB Energy and Ynni Cymru? I am sorry if that is a bit technical, but it is important to know.

**Chair:** Who would you like to ask, Ann?

**Ann Davies:** Whoever fancies taking it—and everybody is quiet. It is a

policy question. Mr Rossiter?

***Joe Rossiter:*** I do not have a particular technical expertise on undergrounding of cables. What I would say is that you cannot bludgeon communities into housing infrastructure in their community, and that is where we need to be a bit more tangible in terms of what the benefit will be. Whether that is the undergrounding of cables, I do not know. It might be part of the mix. I do not have the expertise to advise on that, but I would say that there is understandable friction, and we need to get over it if we are going to deliver at the pace needed.

***Jay Sheppard:*** There are pros and cons to whether cables are going to be on pylons or undergrounded. Cost is certainly one aspect. Disruption is another. I live in a community where underground cables are currently being replaced, and they have been being dug up for close to three years now. There are different metrics that need to be considered with the effects that these different forms of infrastructure are going to have on communities. I would urge caution that visual impact is the only concern for communities, because there is significant disruption from burying them as well, and costs also need to be considered.

Q15 **Ann Davies:** I am going to briefly come back on that. If you are agriculturally minded at all, cable ploughing is very much like mole ploughing—a cut in the ground and the cables are in. A kilometre a day can be done with favourable conditions. It is nothing like the traditional open-cut method, which I fully agree would probably be seven to 10 times more expensive, but cable plough seems to me to be a very viable option.

***Jay Sheppard:*** All I would urge is a holistic consideration of all the factors on a case-by-case basis.

**Ann Davies:** I absolutely take that on board.

Q16 **Llinos Medi:** Are there any areas in which Great British Energy could help resolve the current blockage or challenges that we face in Wales? I ask that as someone who tabled five amendments to the Great British Energy Bill, one of which would have introduced a quota for marine energy, and another that would have mandated community benefit and local ownership—everything that has been said here today. Unfortunately, the amendments were not accepted. You mentioned new and emerging technologies earlier on. Do you find that there are any blockages within Great British Energy that are preventing innovative energy production?

***Jay Sheppard:*** I am not sure if there are any blockages within GB Energy itself, but there are blockages in the energy sector, where GB Energy could step in and fulfil a niche. At the moment, it is not commercially attractive to develop sites for these new and emerging marine renewables, so taking on a role to develop sites, through building in the grid infrastructure and achieving the environmental consents, to

then bring in the technology developers, would be really beneficial in bringing the sector forward.

***Joe Rossiter:*** It is that role of de-risking those more risky, innovative projects. Those are also the ones that could have long-term, large-scale economic benefit, in that, if we are trying to develop Wales as a niche area of expertise that has the skills to develop what could be innovative projects and use them as an export industry and be world-leading, the benefits are larger. That is why I am glad that GB Energy has that principle whereby, if you are investing, they are going to keep a percentage of the profits of those projects as well.

Just as a slight sidebar, I am really glad to see the mission-led approach that the UK Government are taking to this challenge. Having this more collaborative approach, where businesses are in the room with Ministers, co-creating the pathways forward, is a really positive sign, and I just wanted to acknowledge that.

***Benedict Ferguson:*** I will just mention Ynni Cymru here and, at the local scale, its focus on smart local energy systems and the work that it is doing there. Other workstreams at Ynni Cymru are looking at how we can move across the vectors of the energy system, and how community energy can move into heat and power. GB Energy can certainly facilitate and possibly mandate more collaboration with local authorities, although it needs to recognise the unique challenges that local authorities have that have blocked that sort of partnership working, and opportunities in those partnerships to access more UKRI funds for innovation. We could bring a lot more of that to Wales than we have done historically.

It then needs to look at supply chain and repowering opportunities. There is quite a lot that is not resourced at the moment, which Ynni Cymru is looking at. Ynni Cymru has just had a grant call for £10 million, and that has crossed from the community sector into the private sector and is encouraging innovation from businesses and partnerships. There is some good learning for GB Energy from Ynni Cymru, and it would be good to see that supported and consistent.

***Jessica Hooper:*** First, just to add to Ben's comment there, as far as I understand it, GB Energy has set aside £3.4 billion of the fund for community energy. If that is specifically dedicated to community energy and supporting projects like the ones that Ynni Cymru is bringing forward, the innovation that we see in smart local energy systems and the like is going to be multiplied magnificently. You referenced £10 million from the Welsh Government there. This pot is considerably bigger.

That was not the main point that I wanted to make, though. Just to take it back to emerging technology, while not tidal-related, floating wind is a key opportunity for Wales. On the link between GB Energy and the National Wealth Fund, working in conjunction will enable greater attention and delivery of crucial infrastructure in our ports.

That is, as I said earlier, the gateway to our marine environment and to realising local supply chain, local content, delivery of socioeconomic benefits in Wales, and anchoring us with a competitive advantage across the world. That, fundamentally, at the right time and in the right place, can lead to delivery of critical projects, such as the test and demo projects that we are seeing stalling at the moment in the Celtic sea. Fast-paced and accelerated delivery of critical port infrastructure will enable such projects to come forward.

**Chair:** Thank you very much. I want to thank the panel for your knowledge and your detailed answers this morning. Thank you very much to Jessica Hooper, Jay Sheppard, Joe Rossiter and Benedict Ferguson for your time.

## Examination of witnesses

Witnesses: Eleri Davies, Ffion Davies and Emily Hinshelwood.

Q17 **Chair:** Good morning to our second panel this morning. Thank you very much for joining us. We have Emily Hinshelwood online, and Eleri Davies and Ffion Davies in the room—not related, I take it. I know that you were in the Public Gallery earlier to listen to the first panel, so I am sure that you are going to augment and expand on the answers, which will be great, as we carry on our look at energy across Wales.

I am going to ask a more general question to start with, about the most significant barriers that could prevent Wales from reaching the clean energy targets. Where do you think developers could redirect their investment if these issues are not resolved? Has this already started to happen?

***Eleri Davies:*** I will not add to what Jess said, because she covered all the topics that we face as an industry in Wales. If you look at a renewable energy project, you need three things. You need grid, you need a consent, and you need a route to market. Grid is a challenge. It is partly devolved to Wales as an issue, but it is partly reserved, so it sits in both camps.

Consents for onshore wind and most solar projects are devolved to Welsh Ministers, so that is wholly within Welsh Ministers' control, and that is where we are seeing a lot of the blockages now. As well as the speed of consenting, we also have issues with what I like to call obstacles, barriers, hurdles and moving goalposts, in that, essentially, you are setting off in one direction, and then your policy changes, so you have to adjust your project, which just delays the process, adds cost, and makes it quite a challenging place to develop at the moment.

In terms of where the investment is going, in the department that I work in at RWE, we are developing onshore wind and solar and storage projects. We also have offshore and other technologies. At the moment,

we have 14 projects under construction—three of them onshore wind in Scotland, and 11 solar in England. Between them, they are an investment of over £500 million, and none of that investment is coming to Wales at the moment.

Q18 **Chair:** Thank you. I was most remiss—I did not ask you to introduce yourselves. Ffion, would you like to introduce yourself before you go on to answer the question?

***Ffion Davies:*** Good morning. It is a pleasure to be here. My name is Ffion Davies. I am external affairs manager for Wales at EDF Renewables. We are one of the leading renewable energy companies, with approximately 1.5 GW of operational projects. In Wales, our office is in Cardiff, and we have a service centre in Aberystwyth to operate and maintain our onshore wind farms.

***Eleri Davies:*** Bore da. I am Eleri Davies, head of onshore wind development, covering Wales and, more recently, England, which has now opened again in the UK. RWE is the biggest energy producer in Wales. I am also on the onshore wind taskforce, representing RWE.

***Emily Hinshelwood:*** I am Emily Hinshelwood. I am co-founder of the Awel Aman Tawe community energy charity in the Amman valley. We set up 26 years ago and have developed two of the largest renewable energy co-operatives in the UK. We have a wind farm co-op, Awel, and a solar co-op, Egni. We have installed roughly 10 MW of power and work closely with two local authorities in Wales—Newport and Pembrokeshire. We have built our own wind farm, but we are also involved in two shared ownership schemes with private developers. From the sale of the electricity, we bring £100,000 to £200,000 a year into community projects, and we employ 18 people in our area.

Q19 **Chair:** Thank you. I am going to go back to Ffion. If you can remember the question, it would be really helpful if you could give your answer.

***Ffion Davies:*** In Wales, we have great ambition for delivering renewable energy and really significant potential. The key challenges, as we have heard this morning, are grid and planning. While these challenges are felt across the four nations, there are particularities that are unique to Wales. Planning is devolved in Wales and, with the Planning Policy Wales step-wise approach, there is room for interpretation. That lack of clarity does cause delays to our projects, which are costly, and does not bring forward the benefits that Wales needs from renewable energy projects. We would welcome further clarity, particularly in relation to peat. We would welcome the peat planning policy that the Welsh Government are working on.

In relation to grid, there is a misalignment between Westminster and the Welsh Government on underground and overground, and we have heard about that this morning. Reports that have been published to date by NESO and the like show the increased cost of undergrounding. There is

also an increase in the detrimental impact to the environment from undergrounding. The increased costs are, ultimately, either passed to consumers or can make projects in Wales unviable and less attractive for investment. There are significant challenges that we need to overcome.

***Emily Hinshelwood:*** In terms of community energy, adding to what Ben was talking about earlier, opposition is a big one. The capacity for community energy organisations to scale up is another a big one, because there is the finance and, as Ben was saying earlier, you cannot put installations everywhere. Your location is where you want to put your installations, so you do not have a big area to cover. It is about capacity in terms of finance and understanding of the network. Early in the project, the risks that you have to take to get a project through planning are huge and costly, so finance is a massive one.

The Welsh Government Energy Service and Ynni Cymru are really supportive of local energy. In terms of GB Energy, the opportunity to channel support through them is huge, and we would really welcome that and working within existing structures.

Q20 **Ann Davies:** Picking up on what Ffion said, what we all need to remember is that, if we want a successful green energy project, be it a wind farm, a solar farm or a marine project, you have to bring the community with you. If everybody can crack that, most of the barriers fall away.

Coming back to what you said, considering the range of devolved and reserved interventions that operate across the renewable sector, the policies differ between Wales and England. Coming back to the work of the IAG, it would be interesting to see if you have an understanding of how policy differs between Wales and Great British Energy. If the IAG comes out with figures that are cost comparable between cable plough and pylons, for example, how will that move this forward? A lot of the barriers are from landowners at the moment, who do not allow people on the ground to do surveys for pylons, for example. If this is cost comparable, those barriers will fall away. At the moment, those barriers are there, whether we like it or not, so how can we get over that? This is not moving forward at the moment, is it?

***Ffion Davies:*** What we need is that acceleration to the grid. If it means allowing us to connect our projects that are shovel-ready sooner, that is far better for Wales in terms of bringing benefits to communities. There is grid poverty in mid-Wales. There is a lack of connectivity. That impacts our projects as a developer, as well as businesses that want to expand. Mid-Wales is a fantastic place to work and to operate, and there is that lack of connectivity that would allow businesses to come there.

We have a pipeline of projects that we can deliver a lot sooner than the grid transmission will be delivered, so anything that we can do to accelerate that will bring benefits to Welsh communities in terms of green megawatts, as well as jobs and investment.

***Eleri Davies:*** I can come in on the cost comparable point. You are the expert on cable ploughing, but, as far as I understand it, cable ploughing is appropriate only for lower-voltage cables, although I will stand corrected.

**Ann Davies:** I will just say that they cable plough in Denmark, where they have cable ploughed 400 kV, so it can be done.

***Eleri Davies:*** The thing to understand is that, at the moment, 15% to 20% of UK grid is already undergrounded. The starting point under the Holford rules, which is what the UK Government policy works to, is to start overhead, and then underground where that mitigation is needed. We just need a sensible approach on a case-by-case basis. I am not saying that all grid should be overhead. I am just saying that we need to have that sensible discussion. As you say, we need to bring the communities with us and have those conversations.

***Emily Hinshelwood:*** Bringing communities on board is crucial. There was a discussion earlier about community benefits, but the Welsh Government's support of shared ownership is absolutely along the right lines, because communities will benefit far more if there is shared ownership of a scheme. We were talking about jobs as well. The education pathways need to be thought through as well in terms of bringing jobs to local people. In communities, we have to see the right education and career pathways in place as well, so that, as we scale up, we have local people who are able to do the jobs in our communities.

Q21 **David Chadwick:** On this point about community consent, and picking up on Ffion's point, Joe said in the previous panel that communities cannot feel bludgeoned into accepting these projects. That certainly is how communities feel. People in Radnorshire, for example, can raise examples in the Cotswolds, where they currently have pylons but National Grid is taking the pylons down and putting the energy cables underground. Why are big developers not able to do the same in mid-Wales when they can do that in the Cotswolds?

***Ffion Davies:*** On the grid, that is what NESO is looking at. Grid transmission is not something that, as developers, we would have direct control of.

**Chair:** The pylon debate will go on forever, I am sure.

Q22 **David Chadwick:** Emily, based on your experience of making a community energy charity work, does Wales currently have the conditions to foster a successful community energy ecosystem?

***Emily Hinshelwood:*** There are some very strong community energy organisations in Wales, as Ben was talking about earlier, and Community Energy Wales represents a consortium of very strong community energy organisations. We have the support of the Welsh Government Energy Service, as well as Ynni Cymru.

Community energy is a poor cousin of renewable energy and does not have the status. I really feel that we need to raise the status of community energy and make it a requirement that local authorities and developers set up a partnership with community energy, so that we can deliver renewable energy that is appropriate within communities, and also put money back into communities.

It took us 19 years to get our wind farm up. Conditions were different when we first started in 1998. It is a huge ecosystem to learn your way around as a community. You are not necessarily trained at the start on the whole network of grid connections, wind speed, environmental impacts and all the things that have to be learned when you are working on a project.

The 10 or so community energy organisations in Wales that have been through all this and are very committed and experienced at setting up projects can act as mentors and supporters for other communities that want to develop, but there needs to be a robust programme whereby the community energy sector is supported to support other communities. As I said earlier, there needs to be a commitment that local authorities and developers will work with communities in a significant way, not just in terms of community benefit funds. The ecosystem is there, but it needs support, strengthening and finance.

Q23 **David Chadwick:** We have heard a lot today about community benefits. You have some very tangible examples of those. I think you mentioned that you employ 16 people. I was wondering if you could just tell us a bit more about the community benefits that you have been able to provide through your scheme.

***Emily Hinshelwood:*** As I said, we have set up two renewable energy co-ops—a wind co-op and a solar co-op. The wind farm brings in between £100,000 and £200,000 a year, which goes directly into community projects. We run an education programme across south Wales, and we work with schools on which we put solar panels. We are currently renovating a primary school that closed. It was one of the last community spaces in one of the villages, so we bought the school and have spent five years retrofitting it and doing it up, so that it is a low-carbon community hub. It will be, again, one of the only community spaces in the area.

That has 90 kW of solar and a 50 kW ground source heating system. It will be a hub to support the community, but it will also be a flagship project to show what you can do with an old stone building. We are hoping for net zero by 2030, and it is a demonstration of how communities can really address decarbonisation in their area.

We are about to recruit another five people to run Hwb y Gors, which is the name of the centre. We are really proud of it. We have had lots of communities contact us to support them in doing a similar thing, especially in our area, where schools are being closed all through the

valleys, because they are building super-schools. A lot of the small, stone-built, 20th century schools are closing, and we do not have to knock them down, which is what is happening in a lot of places. We can retrofit and use them as demonstration centres for low carbon.

Q24 **Llinos Medi:** It is important that we understand how Great British Energy can resolve the blockages that you find in Wales, but also how it can support emerging technologies. I do not want us to be stagnant in energy production; we need to be pushing forward and supporting new technologies. Can Great British Energy resolve these blockages?

***Eleri Davies:*** At the moment, we do not have much detail on GB Energy. We have the broad ambition, but we are awaiting that further detail on strategic priorities and associated activities. Because GB Energy has been discussed for quite some time now, we have looked at potential areas where it could intervene to unlock private investment.

We see a role for GB Energy alongside the National Wealth Fund to unlock critical investment projects, including projects that cannot be taken forward by the private sector—for example, tidal lagoons that have been discussed quite a lot, but where private developers see the length of time for the return on the investment being too long, as well as ports infrastructure, hydrogen, transport, and storage facilities. These are things that can unlock and maybe accelerate some of those topics.

It is potentially also about local power plan initiatives around partnering with companies such as RWE to invest in projects. We have been discussing shared ownership. Ben mentioned the partnership that RWE has with Community Energy Wales at our Alwen forest wind farm, where Community Energy Wales will have the opportunity to invest in up to 15% of that project, either at final investment decision, just before we put the spade in the ground, or at the commercial operation date. We have similar models for our Pen March and Abertillery wind farms in south Wales, where we are partnering with the host local authorities to invest in up to 20% of the projects.

There are models out there, but, fundamentally, it comes back to the issue that projects are not moving forward quickly enough in Wales. These benefits that could accrue—community benefits, shared ownership, jobs, skills and so on—are not happening, because the projects are not getting through to that point.

On the point around the route to market with contracts for difference, we have now had six rounds in the last 10 years, between 2014 and 2024. Less than 2% of the CfD capacity awarded in those six auctions has come to Wales. It is quite a sobering statistic, to be honest. Unless those projects come along, all the benefits that come with them do not come along either.

***Ffion Davies:*** On the benefits of GB Energy, it could potentially reduce the risk of emerging technologies such as floating offshore wind. If done

correctly, it could support us in becoming world leaders in getting ahead of the skills gap and developing supply chains here in Wales. Those skills are needed to get us to net zero.

Specifically in Wales, GB Energy could and very likely will deliver benefits, but there is currently only an obligation to consult on overlapping responsibilities. There are similar challenges faced in England, Wales and Scotland, and GB Energy could play a role in collaboration on lessons learned. There are challenges that are being addressed differently in different countries. We have heard about peat being addressed differently in Scotland, so we need to look at and share those lessons learned.

Q25 **Llinos Medi:** One of the barriers that you mentioned is the grid. Would having an alignment between Great British Energy, the infrastructure strategy and the industrial strategy help us to plough on with all these plans, so that there is an alignment between energy production and the infrastructure and we make sure that we grow the economy and benefit from the industrial strategy as well? Would that be a good way forward?

***Eleri Davies:*** Alignment across the board is important, and that is where the new mission control that has been set up by the UK Government to align these things is fundamental. Alignment between GB Energy, Trydan Gwyrdd and Ynni Cymru is all important, but we all need to be moving in the same direction. That is vital for net zero and the success of the country.

***Ffion Davies:*** Just having that alignment and the same targets will accelerate the deployment of renewable energy, which is what we need.

Q26 **Ben Lake:** Eleri, you mentioned something there that sparked a recollection of mine from speaking to somebody involved in the Dinorwig pumped storage scheme. The individual mentioned that it was a good job the UK Government built it back in the 1950s or thereabouts, because it would not be something that would necessarily attract private investment, due to the fact that it has a very long payback period.

I was just wondering whether one of the very useful roles that GB Energy could perform is addressing that market gap in tidal, for example, or other developing technologies, in the hope that it will be able to push those technologies along to the point where private investment and enterprise can then maximise it.

***Eleri Davies:*** It could, absolutely.

Q27 **Ben Lake:** Going back to the discussion about GB Energy, you have all referenced certain barriers or concerns that need to be overcome and how GB Energy might play a helping hand in doing that. Can I flip things on their head and ask you just to name a few key concerns that you might have about GB Energy and the process to date? Do you have concerns that might mean that GB Energy does not fulfil that potential? I would also be very interested to know if you have had any discussions with the UK Government as part of the process of GB Energy and its

development.

***Ffion Davies:*** We firmly support the Government's ambition to accelerate the transition from fossil fuels to a clean energy-powered system. As I mentioned, specifically to Wales, we would like to see that collaboration and the lessons learned. Currently, there is an obligation to consult only on overlapping responsibilities, so we would like to see that collaboration.

EDF Renewables has been involved in discussions with the Department for Energy Security and Net Zero. Our director, Tristan Zipfel, gave evidence on the Bill on 8 October, so we have been involved in that. We feel that GB Energy will deliver benefits to Wales, if the focus and remit is set appropriately. The Government are yet to come out, but we do feel that it could.

***Emily Hinshelwood:*** Awel Aman Tawe has been involved through the local energy contact group, and has been working to input support. Ben from Community Energy Wales is also on that contact group. There has been some support, also pre the election, with the community energy group and Peter Capener, from Bath & West, who has been co-chairing the contact group. There has been some input from community energy.

We talked about how long it took Awel Aman Tawe to get our wind farm up, and all the issues in the early stages. One issue that we flagged up was the power plan, which, if I am correct, is looking at £600 million support to local authorities in the form of grants, and £400 million to community energy in the form of soft loans. If I am correct in saying this, the idea of loans makes it much harder for communities in those early stages to get things off the ground, because we do not have easy access to the level of funding that is required to get projects to the point at which they have planning and are able to then get access to finance.

***Eleri Davies:*** Without knowing the full detail of GB Energy, it is quite hard to comment. Fundamentally, it should be a vehicle to facilitate and drive forward the investment and the topics that we have already discussed, but not to come in and displace investment that would have happened already. If it does that, there is no net benefit from GB Energy, effectively.

**Ben Lake:** Thank you. That is very useful.

Q28 **Andrew Ranger:** Moving on to the financing side, we have touched on some of this throughout the discussion already, but do any witnesses have anything to add in terms of what the most significant financial barriers are to investing in renewable energy in Wales, and particularly the new and emerging side of the technology?

***Eleri Davies:*** I can comment only from the perspective of established technologies, because that is the area that I work in. Ultimately, it is a combination. Do you have a viable consent in the right place? There are technical considerations, such as whether it is windy enough, or the

terrain. The grid cost is a big factor that goes into that. You need all of those things to come together to be competitive in that contracts for difference auction.

I want to pick up on something that Mr Sheppard said earlier about 20% of UK content coming from wind. I would have to check with him, but I think he was referring to the turbines themselves, not to the total contract price. My figures are closer to 60% UK content and 40% non-UK content. That is because there are no large-scale turbine manufacturers in the UK. Fundamentally, you cannot buy them from within the UK. 60% of the other costs—the electricals and civils, balance of plant costs, and the grid costs—remain within the UK, because it makes economic sense to buy them locally and not ship them in from abroad. They are the sorts of challenges that we have.

You then go into a contracts for difference auction and have to put forward your best price to achieve that against the other projects competing across the UK. In terms of the prices that were awarded in auction round six, which was the latest one, onshore wind was £50.90 per megawatt-hour. Onshore and offshore wind, and solar, are the cheapest forms of renewables out there, and that lowers costs to the consumer.

***Ffion Davies:*** Onshore wind is a proven technology. We can deploy it quickly and relatively cheaply, as well as operate it cheaply. It is bringing forward the skills needed for future emerging technologies, so that onshore wind technicians can transition to floating offshore wind operations in the future, potentially. It is a technology that is available here and now.

Q29 **Andrew Ranger:** Where are those skills being developed? Is it within firms and companies, or are you working with universities and public institutions on research?

***Eleri Davies:*** In terms of our wind turbine apprenticeship scheme, RWE trains all of its UK apprentices in Coleg Llandrillo/Menai in north Wales. They are based out of the college for their learning part, and are then partnered with an onshore or offshore wind project, which can be anywhere in the UK. We have just taken on our hundredth apprentice into Coleg Llandrillo/Menai. This year was our biggest ever intake.

The more projects that come forward and get built, the more apprentices we will need. That is just the apprentices side of it. We worked with Jones Bros of Ruthin to build our Clocaenog forest wind farm in north Wales. They trained a lot of apprentices through that wind farm, who now have the skills to be transferring that to other wind farms. Unfortunately, not many are being built in Wales at the moment—in fact, none of any scale—so they are all working up in Scotland at the moment. Hopefully, we can bring them back down if we get a few more consents through and a few more projects awarded through the CfD.

***Ffion Davies:*** EDF Renewables partnered with DP Energy, Pembrokeshire College and Pembrokeshire Coastal Forum to develop a programme in Pembrokeshire College originally, called Destination Renewables. It is really to raise awareness and ambition about the careers available in renewable energy, across a mix of technologies. That programme brings industry into the classroom to bring it to life, and it has been hugely successful and award-winning. We have rolled it out in other colleges in Wales, as well as exported it to England now.

As Eleri said, if you build the projects, the skills and jobs come. We also run a graduate programme for our apprentices. I would love to see more based in Wales. As we are building out more projects in Scotland and England, the hands-on practical work is based in England and Scotland at the moment. I would love to see more delivery and deployment of renewable energy in Wales, and to bring on more and more apprentices here.

Q30 **Andrew Ranger:** Emily, I come back to the original question about the significant financial barriers, particularly to new and emerging technologies. If you have anything to add on the skills side as well, I would be interested.

***Emily Hinshelwood:*** Finance is a massive thing for communities, as we talked about earlier, especially in the early stages of a project. Even once the project has planning permission and is ready to go, getting the finance to build it is another significant issue. For our projects, we set up a co-op. For most of our projects, we have half-financed them with community shares. For example, our wind farm was an £8 million project, and we raised £4 million through community shares.

In terms of getting the rest of the finance, we have had bank finance and loan finance. Having support through GB Energy with the legal costs of getting bank finance would be a huge assistance. That support to community energy to help in accessing finance to build would be important. With the local power plan being loans, having support in grant form would also be really good. The whole shared ownership thing is great, because quite a lot of the early stages of a project are not for a community to do; they are doing it at risk, whereas, if we are working with a developer, a lot of that is covered by them in the initial stages, with payback by the community once it goes ahead, so another reason for shared ownership.

In terms of education, we work with schools. We are working with pupils at a younger age than university. We are finding that so many people, especially when they come and visit the wind farms, have solar on their roof and are really excited by renewable energy. We absolutely want to see that moving through the education sector and into university, so more support to run those education programmes at school level is vital.

Q31 **Andrew Ranger:** GB Energy and the National Wealth Fund could probably enable the public and private sectors in Wales to work together

to deliver the scale of development that we need to reach net zero. How should that happen? Is the public sector in Wales culturally ready for the risks involved with that?

***Emily Hinshelwood:*** We are culturally ready. At the education level, there is a huge push for saving the planet and wanting to be part of that. The curriculum at the moment is really pushing for ethical citizens and addressing the climate and biodiversity crises. Schools are gearing up for that. The funding is not there. Culturally, we probably need much more visibility of renewable energy at an education level, so that there is a clear pathway. We just do not know what the jobs are going to be in in 10 years' time, but we can plan for them. We can start to see what the pathways are. Especially if we are thinking much more about the industry of developing the components in Wales, we can start to put those education pathways together.

More private and public partnership over that would make it easy for schools and universities to see what the pathways are. Community energy can be part of that, because we are available. All of the community energy installations are already having visitors and doing education programmes, and visibility is there in the community, so that helps the cultural transition.

***Ffion Davies:*** As I mentioned earlier, we feel that Great British Energy could leverage private and public finance to de-risk emerging technologies such as floating offshore wind. If done correctly, it could allow us to become a leader in innovation, building up the supply chain and the skills. If the remit and focus are set correctly, there could be significant benefit. The focus should be on de-risking in that early development phase, and also on increasing support in communities and providing a refinancing option.

***Eleri Davies:*** Your point was around whether the public sector is culturally ready. While Community Energy Wales is third sector rather than public, they and host local authorities for Abertillery and Pen March are certainly keen to be involved in the conversation. Up until final investment decision, there is no risk on the local authority or on Community Energy Wales. As a developer, we fund all of the development costs, so there is no risk there until you then do your due diligence. That is when we will find out whether there is that appetite to take up that investment.

There certainly is a role for GB Energy to potentially provide that equity funding to the public sector to be able to invest. RWE has a lot of projects in Germany, where we have municipalities invested into our projects up to 49%. It is not unusual in other countries. Wales, and maybe the UK, are a little bit further behind.

**Chair:** Thank you to the second panel. We have exhausted our questions for you this morning, you will be pleased to know. Thank you so much for your time, Emily Hinshelwood, Ffion Davies and Eleri Davies. Along with

the first panel, it has been an invaluable session for us, and I am sure that it will not be the last time that we look at energy in Wales. Thank you again very much for your time, and thank you to Committee members.