



# **Cynulliad Cenedlaethol Cymru** **The National Assembly for Wales**

## **Y Pwyllgor Amgylchedd a Chynaliadwyedd** **The Environment and Sustainability Committee**

**Dydd Mercher, 22 Chwefror 2012**  
**Wednesday, 22 February 2012**

### **Cynnwys** **Contents**

Cyflwyniad, Ymddiheuriadau a Dirprwyon  
Introduction, Apologies and Substitutions

Ymchwiliad i Bolisi Ynni a Chynllunio yng Nghymru—Tystiolaeth am Ynni'r Môr ac Ynni'r Llanw  
Inquiry into Energy Policy and Planning in Wales—Evidence on Marine and Tidal Energy

Cynnig o dan Reol Sefydlog Rhif 17.42(vi) i Benderfynu Gwahardd y Cyhoedd o'r Cyfarfod  
Motion under Standing Order No. 17.42(vi) to Resolve to Exclude the Public from the Meeting

Cofnodir y trafodion hyn yn yr iaith y llefarwyd hwy ynddi yn y pwyllgor. Yn ogystal, cynhwysir cyfieithiad Saesneg o gyfraniadau yn y Gymraeg.

These proceedings are reported in the language in which they were spoken in the committee.  
In addition, an English translation of Welsh speeches is included.

**Aelodau'r pwyllgor yn bresennol**  
**Committee members in attendance**

Mick Antoniw	Llafur Labour
Mark Drakeford	Llafur (yn dirprwyo ar ran Rebecca Evans) Labour (substitute for Rebecca Evans)
Yr Arglwydd/Lord Elis-Thomas	Plaid Cymru (Cadeirydd y Pwyllgor) The Party of Wales (Committee Chair)
Russell George	Ceidwadwyr Cymreig Welsh Conservatives
Vaughan Gething	Llafur Labour
Julie James	Llafur Labour
Alun Ffred Jones	Plaid Cymru (yn dirprwyo ar ran Llyr Huws Gruffydd) The Party of Wales (substituting for Llyr Huws Gruffydd)
William Powell	Democratiaid Rhyddfrydol Cymru Welsh Liberal Democrats
David Rees	Llafur Labour
Antoinette Sandbach	Ceidwadwyr Cymreig Welsh Conservatives

**Erail yn bresennol**  
**Others in attendance**

Tonia Forsyth	Rheolwr Rhwydwaith, Marine Energy Pembrokeshire Network Manager, Marine Energy Pembrokeshire
Toby Gethin	Ymgynghorydd Caniatáu, Ystad y Goron Consents Advisor, The Crown Estate
Dr Dickon Howell	Pennaeth Trwyddedu Morol, Marine Management Organisation Head of Marine Licensing, Marine Management Organisation
Dr David Tudor	Uwch Reolwr Polisi a Chynllunio Morol, Ystad y Goron Senior Marine Policy and Planning Manager, The Crown Estate
Dr Miles Willis	Rheolwr Prosiectau, Sefydliad Ymchwil Carbon Isel—Morol Project Manager, Low Carbon Research Institute—Marine

**Swyddogion Cynulliad Cenedlaethol Cymru yn bresennol**  
**National Assembly for Wales officials in attendance**

Alun Davidson	Clerc Clerk
Catherine Hunt	Dirprwy Glerc Deputy Clerk
Graham Winter	Gwasanaeth Ymchwil Research Service

*Dechreuodd y cyfarfod am 9.29 a.m.*  
*The meeting began at 9.29 a.m.*

## Cyflwyniad, Ymddiheuriadau a Dirprwyon Introduction, Apologies and Substitutions

[1] **Lord Elis-Thomas:** Bore da. Good morning, and welcome to the committee. Now that we know that you have observed us in action in our previous meeting in the Centre for Alternative Technology, it is good to have you here.

[2] Mae gennym ymddiheuriadau. Mae Mark Drakeford ac Alun Ffred Jones wedi ymuno â ni—rydym yn eich croesawu'n fawr. Mae Julie James wedi ymddiheuro ei bod yn gorfod gadael yn ystod y cyfarfod oherwydd ymrwymiad â'r Gweinidog. Rwy'n siŵr ein bod yn hapus i ganiatáu unrhyw gyfarfod â'r Gweinidog. We have apologies. Mark Drakeford and Alun Ffred Jones have joined us—we welcome you. Julie James has apologised that she will have to leave during the meeting because of a commitment with the Minister. I am sure that we are happy to allow any meeting with the Minister.

9.30 a.m.

### Ymchwiliad i Bolisi Ynni a Chynllunio yng Nghymru—Tystiolaeth am Ynni'r Môr ac Ynni'r Llanw Inquiry into Energy Policy and Planning in Wales—Evidence on Marine and Tidal Energy

[3] **Lord Elis-Thomas:** Would you like to say something further to your paper before we move to questions?

[4] **Dr Willis:** Good morning, everyone. My name is Miles Willis from the Low Carbon Research Institute. You will note that the response that the Low Carbon Research Institute gave was not directly in answer to the questions we were asked.

[5] **Lord Elis-Thomas:** That is allowed.

[6] **Dr Willis:** I would like to discuss with you some of the points that we made and what we in the academic institutions around Wales—all the coastal institutions—feel is the way forward in pushing the marine energy agenda in getting devices in the waters in Wales. I would happy to discuss that with you today.

[7] **Ms Forsyth:** Good morning, everyone. My name is Tonia Forsyth. I am here today representing Marine Energy Pembrokeshire. I thank you all for giving us the opportunity to come to provide evidence today. Marine Energy Pembrokeshire is a relatively new organisation. It was established in 2010, and it was essentially set up in response to a call from industry to have a more co-ordinated and integrated approach to how we develop marine energy off the Pembrokeshire coastline. Hopefully, our business plan has been circulated to you, which outlines the work that we will do over the next three years. We are funded primarily by Welsh Government, and by the Crown Estate and statutory bodies. We look forward to your questions today.

[8] **Lord Elis-Thomas:** To start with a general opener, would you say that your sector of marine energy is relatively neglected or has not had a sufficiently high profile, even from this committee? We have spent a lot of our time on this inquiry on planning and energy looking at onshore renewables, mainly wind, which is, as the media likes to say, 'controversial'. Therefore, do you think that we have a bit of a catch-up to do here, especially in Wales, on marine energy? One of my colleagues would say that that is a leading question, but you can accept it in any form you would like to respond.

[9] **Ms Forsyth:** I am coming from a local Pembrokeshire perspective, which is Marine Energy Pembrokeshire. There is potentially some catching up to do. The industry for wave and tidal is still embryonic, but there is an enormous opportunity, especially off the Pembrokeshire and Anglesey coastlines. We have noted that, in the last two years, from where we started, there has been a significant change from the Welsh Government in its support, and that is reflected in the fact that we now have three years' funding to develop our action plan through Marine Energy Pembrokeshire. We welcome the opportunity today to be able to talk to you in more detail about some of the opportunities it presents.

[10] **Dr Willis:** I do not think that the word 'neglected' would be the word I would choose. As Tonia said, it is an embryonic industry. People are literally in garden sheds building devices and trying to get stuff in the water. This meeting is very timely; the time is right now to start this further support for the industry, especially in Wales. As Tonia said, we have a fantastic resource around all of our coasts. There is a need now to start putting these initiatives together. It is not neglected, but it is at a point where we should not start neglecting it. We should start getting behind it a bit more.

[11] **Ms Forsyth:** We are at a pivotal point for the wave and tidal industry. What will happen in the next few years will be crucial to whether we retain our position on a UK basis as world leaders in this industry and really grasp the opportunities, not just for producing energy, but also for the benefits to manufacturing and the supply chain. So, I echo what Miles said that it is important now that we start to raise the profile of marine energy and look at it in more detail.

[12] **Lord Elis-Thomas:** Would you welcome that, in our report—and I promise that we will write one soon; this is such a huge subject area that we are pursuing—we gave this the weight that you think is now timely?

[13] **Ms Forsyth:** Yes.

[14] **Dr Willis:** Yes, very much so. Please send out a good message from Wales as well.

[15] **Alun Ffred Jones:** Gan Alun Ffred Jones: To concentrate on marine energy, and tidal and current energy specifically, ScottishPower said in its evidence that the target of achieving 4 GW of energy in Wales by 2025 is unrealistic. It goes on to explain more about that. I have been interested in this area in my time in the Assembly, over some nine years, and I have heard a great deal of talk about marine energy and tidal and current energy, but when I have been to seminars and so on, it very often appears that the equipment or the prototypes look like Heath Robinson inventions. So, how realistic are these targets, and what needs to happen in order to turn these aspirations into a reality for energy and electricity generation?

Gan ganolbwyntio ar egni o'r môr, ac egni o'r llanw a cherynt yn benodol, dywedodd ScottishPower yn ei adroddiad bod y targed o gael 4 GW o ynni erbyn 2025 yng Nghymru yn afrealistig. Mae'n mynd ymlaen i egluro mwy am hynny. Rwyf wedi ymddiddori yn y maes hwn ers imi fod yn y Cynulliad, ers tua naw mlynedd, ac rwyf wedi clywed llawer o sôn am egni o'r môr ac egni o'r llanw a cherynt, ond pan rwyf wedi mynychu seminarau ac yn y blaen, ymddengys yn aml iawn bod yr offer neu'r prototeipiau a gynigir yn edrych fel dyfeisiadau Heath Robinson. Felly, pa mor realistig yw'r targedau, a beth sydd rhaid digwydd i droi'r dyheadau hyn yn realiti sy'n cynhyrchu egni a thrydan go iawn?

[16] **Dr Willis:** Thank you for the question. To give you a little bit of background, the 4 GW target that you mentioned was originally for wave and tidal; it was not just for tidal stream. The idea was possibly to have a 50/50 mix—2 GW of each. That is a big target, and

ScottishPower was correct to question whether that was achievable by 2025, given that, at the moment, we have no gigawatts. It is correct to send out an ambitious message to the UK and globally to say that Wales is open for business and that we have a large resource. This 4 GW target came from a PMSS report for the then Welsh Development Agency back in 2005, which said that there was potential for 40 GW of wave and tidal stream around the Welsh coast. The notion was to take 10% of that amount to try to get a target for 2025. So, that is where the 4 GW target has come from. It will be extremely ambitious to hit that target.

[17] As regards the devices, which you say remind you of Heath Robinson devices, I would say that they are five or six years into development. I went to a seminar with Dr Andy Tyler, the chief executive officer of Marine Current Turbines, and he said that his latest device in Strangford Lough in Northern Ireland will probably be sitting in a museum in 20 years' time and people will be laughing at it. So, the turnaround in the industry with regard to technology development is currently very rapid. There will be some coalescing of these technologies, as we have seen in the wind industry, but, at the moment, people are trying out their own various devices.

[18] **Alun Ffred Jones:** Fy nghwestiwn oedd: beth sydd rhaid digwydd er mwyn cyrraedd y targed o 4 GW neu unrhyw darged arall? Mae llawer iawn o siarad cyffredinol nad oes angen y gwahanol ddulliau i gynhyrchu trydan ac yn y blaen, gan fod y potensial mawr hwn ar gael o amgylch arfordir Cymru. Gofynnaf unwaith eto: beth sydd rhaid digwydd i droi hynny'n realiti o fewn 10 mlynedd?

**Alun Ffred Jones:** My question was: what needs to happen to achieve that 4 GW or any other target? There has been a great deal of talk in general terms that we do not need these different energy production methods to produce electricity and so on, because of the huge potential around the Welsh coastline. I ask once again: what needs to happen to turn that into reality within 10 years?

[19] **Ms Forsyth:** It is good to have targets; it certainly helps to bring confidence to the industry. However, as I said before, we are now at this pivotal point and the priority for developers is to look at developing their technology and to bring in cost reductions, because of the extremely high costs for wave and tidal. So, what needs to happen now from a Government point of view is for it to look at how it de-risks the industry, to allow the developers to focus on those issues. So, over the next few years, if we can look at issues to do with consent, licensing, infrastructure and finance, that will help to develop the industry and send a strong message to the industry and to financiers to invest.

[20] **Vaughan Gething:** Apologies for being late. This area is interesting for all of us, and I was pleased to hear you talk about the potential for Wales to be a world leader in this area. I am interested in the jobs potential. One thing that you mention in your paper is the creation of a marine energy Wales group that would be industry led. I would be interested to know how far the industry has gone in terms of coalescing to form that sort of group on its own. If they see a shared interest, are companies already talking to each other about what they would want, so that they would have a unified voice to come to the Welsh Government and all the other bodies involved in consenting and licensing?

[21] Secondly, other than the creation of that group, what specifically are you looking for the Welsh Government to do within its current powers? How should it work with others? We have the Marine Management Organisation and the Crown Estates coming before us later today, and I am interested in what the Welsh Government could do to try to put us into a position where we effectively map where the resource is, so that we understand where the most commercially viable areas to exploit are and deal with the environmental issues and the licensing and consent issues. I am more interested in where you see that coming from, and how quickly you think that it could be done, to try to deal with the ambitious targets that we have.

[22] **Dr Willis:** On a local scale, the developers are coming together with the county councils and the local courts. That is what is happening with things such as Marine Energy Pembrokeshire. My idea for a marine energy Wales group—or something like that; not just a task group, but a task-and-finish-type group—would be to coalesce what is going on in Pembrokeshire, Anglesey, the Llŷn peninsula and places like Swansea bay and to try to get all these people together into one cohesive group. The confusion arises when a developer comes into Wales. Where do they go and who do they speak to? They might speak to us in the university sector, or Tonia down in Pembrokeshire, because there is a resource there, but it is a confused message. To give an example, if we went out on the road to the various trade exhibitions around the UK and Europe, we would find that there is no central voice or person that they can go to for more information. There is no particular cost associated with this. The groups are already there; they are meeting, but under various guises and there is no joined-up thinking or real strategy to that. That is why it needs to happen.

[23] You mentioned timescales, but that could happen now. There are civil servants within the Directorate for Business, Enterprise, Technology and Science whom we deal with on a regular basis, as Tonia does, who are starting to get this coalescence, but it tends to be a spider diagram rather than a joined-up—I do not like using the word ‘committee’—group of people that can set agendas and that is empowered to make things happen. Without that in place, you get bitty movement forward, and that is the danger at the moment.

[24] **Ms Forsyth:** I think that I am right in saying that Marine Energy Pembrokeshire is a unique partnership; that model does not exist anywhere else in the UK. You have developers looking to put a device in the water sitting around the table with the supply chain, the Welsh Government, statutory bodies, the Crown Estate and the Countryside Council for Wales and also academic institutions. On a local level, we can look at how we can de-risk the industry, but some of those issues go much broader than Pembrokeshire. So, we would welcome the suggestions by Dr Miles Willis for a Wales energy group. In some of the work that we have been doing lately, we have identified that there is no single point of contact for a marine energy developer. As Miles said, it is quite confusing at the moment. In terms of business support, for example, there are lots of different types of business support, but they need to come together.

9.45 a.m.

[25] We are, therefore, working with the Welsh Government to look at those elements. For example, at the moment, we are producing joint materials, so that when we go to conferences, we have more of a Wales voice, so that we can also promote some of the fantastic work that has gone on in Wales. In particular, I would like to mention the marine renewable energy strategic framework. It is a fantastic piece of work, but people are just not aware of it. One thing that I found surprising at the last conference that we went to, in Manchester, was that people do not even know that Wales is on the marine energy map. There is an awful lot of work to be done there, but again, it is relatively easy for us to do that; we just need to prioritise, and that, too, has to be on a Wales basis, and not on a Pembrokeshire basis, which it has been to date.

[26] On your second question, to do with consenting, I believe that you have had a lot of discussions already about onshore wind and issues to do with consenting. There are some real issues at the moment. Certainly, from the industry’s point of view, there is a lot of frustration with the current licensing and consenting process. However, the moment you step off the land and into the sea, things become so complex: you are talking about a three-dimensional environment that you cannot see. We have limited knowledge of what is there and we have limited data on species and habitats. We are talking about an embryonic industry, so we do not have an understanding of the interactions between marine energy devices and the species

and habitats. We therefore have an awful lot to learn. Also, by its very nature, where marine energy is concerned, the best resources tend to be in strong areas of nature conservation, which adds to the complexity. Of course, being a nature conservation area, it has a plethora of designations, and I would mention the habitats directive in particular. So, the Countryside Council for Wales's perspective means that it is in a very challenging position, and we are moving to a much more evidence-based decision-making process, and it is very difficult for the council to respond to things in the timely manner that industry needs. Of course, none of this is helped by the fact that the council is under-resourced at the moment, or the fact that its caseload has increased significantly over the past few years.

[27] So, from the point of view of industry, it is saying that it needs this issue to be addressed. It needs a transparent system for consenting and licensing and it needs local knowledge, so that when it is dealing with people on consenting, those people have the local knowledge to be able to help industry to understand the areas concerned. It needs it to be streamlined and consistent. That is the message coming from industry.

[28] **Vaughan Gething:** On this point about consenting, my understanding from reading your evidence—which I did find interesting—is that you want to be able to deploy a range of test devices quickly in certain areas, to help you to scale up and understand what you could then do commercially. If we are not able to do that relatively promptly, the opportunity will be lost. I am interested in how much of that conversation you have had with the sector panel that reports to the Minister for Business, Enterprise, Technology and Science, as well as the other consenting bodies for onshore and offshore projects.

[29] **Dr Willis:** We have had early-stage discussions with civil servants in BETS to see what Welsh Government can do to get this process going. Looking at the Department of Energy and Climate Change's route-map, we see that there is an opportunity in this for Wales, as you mentioned, with people coming out of the European Marine Energy Centre in Orkney with a tested device. They now want to test six or 12 devices—a 10 to 20 MW array. We see that as an opportunity for Wales. So, what can Welsh Government do? From our discussions, we think that it is too early to consent to a piece of sea with a cable in it so that these people can plug in, because we know that there are business cases, certainly down in the south west of England, where that is not necessarily the right thing to do. However, we think that there is a staged approach—you have initially to open the shop window, to show what Wales has. So, you need the data from the sea, from tides and waves, to show developers that this does start to stack up in a business sense. That is something that the Welsh Government could help with to start the process. That is how we see this process beginning.

[30] **Lord Elis-Thomas:** I think that I had better hand over to Antoinette.

[31] **Antoinette Sandbach:** I was interested to see in your paper that you do not have the data, because, in 2008, you had £15 million-worth of funding from the Welsh European Funding Office, and I think that it is a £34 million project. So, why has data collection not been a part of that project, if it is as important as you suggest in your paper?

[32] **Dr Willis:** The Low Carbon Research Institute has received £15 million, and marine is a part of that. So, a fifth of that funding has gone to marine. However, the question remains. We have data, which have been made available on our website. There is now a library, so developers know about these data, but the library has come from the academic institutions. When academics disseminate work, it tends to be in peer-reviewed journals. So, a lot of these data have gone to peer-reviewed journals. The argument is that that is no good because developers do not see these data. So, we have offered these data to, for example, the Crown Estate, which is now putting together a UK-wide database that will be available for developers to use. So, these data have been offered to them. As I have said, we have also put links on the website to what we have. We also have one-to-one relationships with developers

and we have given them site-specific data, whether it be current profile data—how fast the tide is moving—or bathymetry data, or benthic data, that is, what the communities on the sea bed are like. So, we are giving out data.

[33] We have to be careful: in academia, we are not data machines; those are jobs for the survey companies. So, if we were to take European funding, in this case, and do regular surveys, we would actually be taking jobs away from the survey companies. So, we have to be careful that we do not step into survey mode. We are trying to find out the science of what is going on behind this. We are never going to produce reams and reams of survey papers.

[34] **Antoinette Sandbach:** I understand that, but what process of education has there been from you to the civil servants of BETS in order to help to educate them to allow them to create the shop window that you are talking about? If your data are presented, as you said, in peer-reviewed papers in a way that is perhaps not easily understandable, digestible, or sellable, if you like, what steps have you taken, perhaps working with Marine Energy Pembrokeshire and other bodies, to help to create such leadership at the top of Welsh Government?

[35] **Dr Willis:** It tends to be on an ad hoc basis and down to the personalities within the group meeting members of BETS. So, there is no regular forum in which we meet. I chair the working group in Marine Energy Pembrokeshire, and I am on the committee, the marine working group, of energy island. There are conduits for our work. We are not just sat in academia publishing papers. So, we can do that ourselves through the local groups. What we find challenging is doing something formally through the Welsh Government in order to start making a difference. That is why this group, marine energy Wales, or whatever it might be called, will be a way to do that on a more formal and structured basis.

[36] **Antoinette Sandbach:** Have you tried working through the energy sector panel that has been set up by the Welsh Government? What kind of leadership is coming out of that energy sector panel—and perhaps I can direct this question to both of you—in terms of taking things forward? What I am trying to ask is: are there any faults within the existing structure or areas that are not working properly that you could help to put right in order to create that shop front?

[37] **Dr Willis:** I can see a fault immediately, because I have not worked with the energy sector panel. There is a fault there straight away.

[38] **Ms Forsyth:** We tend to work indirectly with officers in different departments of the Welsh Government. We do not work with the energy sector panel at all.

[39] **Antoinette Sandbach:** So, nobody is talking about—

[40] **Dr Willis:** We probably work with the people who are on the panel, but we do not have a voice on that panel.

[41] **Ms Forsyth:** We know that it exists, but we do not tend to work with it.

[42] I would like to mention something in relation to your earlier point on research. With Marine Energy Pembrokeshire, we have been looking at research, because, as I am sure you can appreciate, as a small local group, we have enormous problems trying to get ongoing funding to keep the momentum going with the development of Marine Energy Pembrokeshire. However, at the same time, we look with frustration at all the academic institutes and the several millions of pounds that they bring in. One of the things that we did last year was to call a meeting between all of the different research projects that were looking at marine energy in Wales. We brought them together so that each of them could explain to

developers what they were doing, and to see whether there were any opportunities to try to link with the business sector and to influence any future projects that were put forward. We did that, and it was a very interesting exercise. From that, we have had discussions about how we can move to the next stage with it.

[43] There used to be a group called the marine energy task group, which Miles was involved with. We have been in discussions about trying to re-establish that group, which was one of our proposals. Maybe that could be done through an all-Wales marine energy group, and you could have a sub-set that would look at research, but it would have to be industry-led. There are some real opportunities there that we are missing at the moment. However, I also appreciate that a lot of the funding is European funding, which has different priorities, but if there was something that the Welsh Government could do to influence those priorities at the starting point, there would be some real opportunities for us.

[44] **Julie James:** To follow that through, I am a bit startled that you are not working with the energy panel, so I will try to raise that issue with the panel as it seems to be the obvious umbrella group for you. To try to understand what you are asking for—I understand the point on the shop window point, and we have had a bit of a discussion about that—do you have any test devices at the moment that are trying to get consent, or are you a stage back from that? I know there is one going to Ramsey sound, for example. Do you have any examples of projects that are currently struggling with the regime that we might use as an example? One of the issues is the sheer complexity of the regime as soon as you step offshore, as I think you put it. We are all familiar with that, and we all struggle to get our heads around some of it. However, when you have a practical example of what is happening, it is sometimes easier to see a way forward. That is my first question.

[45] My second question is completely unrelated to the first, if the Chair will indulge me.

[46] **Lord Elis-Thomas:** I am sure that it will appear relevant at some stage.

[47] **Julie James:** The unrelated question is: to what extent have you had a role to play in the ongoing conversation about conservation areas and navigation areas, and how they are affecting your work? Have you had any direct input into that, because my understanding is that the various conservation groups, as you said, tend to be in the areas with the highest tidal range or the fastest tidal current and so on? So, there is an obvious cross-related point.

[48] **Dr Willis:** To start from the consent side, you mentioned Ramsey sound and the DeltaStream device of the energy company, Tidal Energy Ltd. Although it now has consent, that is quite a good example to use of the struggle to get stuff in the sea. It was a three-year process to get a 1.2 MW device in the water for a year. Unfortunately, those that are first in the sea will have to take those hits, because they are an unknown quantity. So, groups such as the Countryside Council for Wales are rightly very wary of what is going in there, and, as a result, it will undertake a lot of monitoring and include requests for mitigation in its environmental impact assessments. We would hope that the learning from that process will reduce the time for the next device to go into the sea. I know that a lot of these issues are very site-sensitive. Various species of marine mammal, for example, are very sensitive to where these devices are because their populations are not the same, but the learning process will hopefully quicken up very rapidly.

[49] The consent process for marine current turbines off the north-west coast of Anglesey is starting. I know that the Marine Management Organisation is coming before you later this morning, and I am sure that it can tell you all about that.

10.00 a.m.

[50] The only way to do that is for it to be publicly funded. If a developer does a lot of work on consenting and spends its own money on, for example, marine mammals or cetaceans; it will tend to hold on to those data, because that work has cost money and represents their competitive edge. Why should the developer give it out? So, it is quite refreshing to see that the Carbon Trust has paid for a lot of the marine mammal monitoring for Tidal Energy Ltd and that those data, therefore, will be in the public domain, as they rightly should be.

[51] **Ms Forsyth:** One of the other things about Marine Energy Pembrokeshire is that having all of the developers sitting around the table together provides real opportunities for sharing experiences. That certainly happens. Given that it is such a new industry, despite the fact that they are potential competitors, there are still benefits to their sharing their different experiences. That has been extremely valuable and, as Miles said, there is an opportunity to learn from TEL in particular, because it led the way through the consenting process. It is vital that that experience is shared with everyone else.

[52] **Dr Willis:** Among the group of developers that meet in Pembrokeshire, there is a real open debate among them, is there not? Although they are competitors, they recognise the need to help each other to get to the next level. So, there is a great atmosphere of collaboration within the group even though they are competitors.

[53] **Julie James:** Has there been a lot of learning in the local planning authority as well as in the Welsh Government in relation to that, or is that still an issue?

[54] **Ms Forsyth:** We probably need to start looking at how we engage more with the planners. The national park representative sits on the group and has been very helpful in the discussions, but we do not have anyone from the local authority planning department on the group. That might be something that we now need to consider.

[55] **Julie James:** Some of the places cross the borders of the park and parts of Pembrokeshire itself, do they not?

[56] **Ms Forsyth:** Yes, they do.

[57] Your second question was on the marine conservation zones. Wearing my other hat, I run the Pembrokeshire coastal forum and we have a seat on the stakeholder engagement group for that. I also sit on the marine planning group of the Welsh Government. I provide a marine energy view at those meetings. We work closely with the Welsh Government, particularly with Mike Cummings, who I believe is very heavily involved and is on the steering committee for the MCZs and who represents the views of the industry at those meetings.

[58] **Julie James:** Okay. So, you are having an input.

[59] **Ms Forsyth:** Yes.

[60] **Julie James:** The conversation is happening right now and we have a spectre of them going in and everyone saying, 'Oh, my goodness, that is not what we had in mind'.

[61] **Ms Forsyth:** It will be very important. Work is currently under way on the marine infrastructure study, which is taking the marine renewable energy strategic framework to the next level of looking at site-specific areas, and work is being undertaken by the Crown Estate on strategic areas. That will build a strong picture of where the key sites are, what the resource is, and what the infrastructure requirements are for those individual sites. That will all help in the zoning of marine energy areas as part of the marine planning process and in

looking at the socioeconomic factors through the MCZ site selection.

[62] **Julie James:** I have one last question. One of the issues that we have had with onshore wind, for example, has been the strategic search areas and the serious clash of opinion between people who think that they are a good idea and people who do not think that they are a good idea. Is that sort of thing likely to happen if we zone the marine environment in the same way?

[63] **Dr Willis:** Much of this will come down to where the Crown Estate believes it should put its round 2 and round 1 marine energy sites. It will make that decision. I would like to think that the concordat between the Welsh Government and the Crown Estate will lead to the Welsh Government having a view at that table, but, at the end of the day, the Crown Estate will decide where these sites are.

[64] **Russell George:** Good morning. My question follows on well from Julie James's last question about the controversial issues with onshore wind. The Chair started by saying how very often some people refer to onshore wind as 'controversial'. The issue I wanted to get your thoughts and opinions on is that, very often, there is a thought or an opinion that people impose projects on a community. That is the criticism of onshore wind developments. What considerations have you given to getting community support and community buy-in, showing people the benefits, and building up support, so that rather than imposing a project on a community, you are involving them and consulting not from the top down but from the bottom up?

[65] **Dr Willis:** We have to be careful about this and ask whether that is a role for academics to play. I would argue that it is not. We have to be careful because that role is usually undertaken by the developers going through the consenting process. They will be touring the village halls, literally, putting on displays to show what they are going to do and how they are going to do it. We have been to a number over the years and have seen some working very well because they have been cognisant of community needs, while others have involved large corporates rolling into town and putting up their wares, and there is a bit of a 'Crikey, what's this?' reaction. We play a role on the community side of things. We were with Transition Bro Gwaun in Fishguard a couple of weeks ago, and it was interesting to see that group of passionate local people who wanted to do something in the marine environment asking what they could do.

[66] **Ms Forsyth:** I also run the Pembrokeshire coastal forum, which essentially does stakeholder engagement. It is vital that we are starting to get important messages out about the benefits of the marine energy industry. Pembrokeshire is currently heavily dependent on the oil and gas industry. There is a boom-and-bust economy in Pembrokeshire, largely due to large developments, where construction workers are needed for a short period of time, and then they leave and there is high unemployment. The area is used to change, but it is heavily dependent on the oil and gas industry. Whatever you might think, we will eventually run out of oil and gas. Some believe that we have already reached peak oil. We need to look to the future to a low-carbon economy for Pembrokeshire. We are already starting to try to get messages to the public about the importance of a low-carbon economy for the long-term benefits of the local community and the important role that marine energy can play in that.

[67] We have already done some work and are producing materials at the moment, including fact sheets on marine energy. We are starting to look at the benefits of the industry for Pembrokeshire and what Pembrokeshire has to offer the industry. We have run school projects that encouraged young people in the county to debate issues to do with marine energy and get them thinking about the different sides to arguments—the effects on seascape, landscape and other competing renewables. We have started on that journey, but we have a very long way to go. Tidal Energy Ltd has done a great job of engaging with the community

in St David's, and, so far, it has been very positive. Recently, we went to the Atlantic Array consultations that it ran in Pembrokeshire, which I thought were very well done. However, the general message coming back was that people would rather have wave or tidal generation because it cannot be seen. This will be an ongoing and interesting journey, but we need to start getting those messages out there.

[68] **Dr Willis:** From the community side, we were in Fishguard last week, and I had a telephone call yesterday from a group in Aberdaron who got together to discuss what they could do with a potential tidal resource. They were asking what they could do as a community to take advantage of that. I could not really give them any answers. I did not know what answer to give them. Ultimately, it is not their sea bed; it is the Crown Estate's.

[69] **Lord Elis-Thomas:** I think that we should have a word afterwards if it is Aberdaron. *[Laughter.]*

[70] **Dr Willis:** Are they trouble?

[71] **Lord Elis-Thomas:** No, they are very good people; good constituents. *[Laughter.]*

[72] **Russell George:** I am quite pleased to hear what Tonia has said because it is good that you are gauging and going into schools, rather than just rolling into a village hall with big signs saying, 'This development is coming your way'. That is the right way to do it in my experience.

[73] **Ms Forsyth:** It is about encouraging young people to form their own conclusions. The key to stakeholder engagement is about information and getting information out there at the earliest possible stage so that people can make more informed decisions.

[74] **Russell George:** That is right. It is about proper consultation, not just telling people what is coming their way. The second part of my question relates to the fact that, very often, in the controversial cases, it is not the technology itself that is the problem, but the infrastructure needed to connect the power to the grid. Have you discussed the future needs with the national grid and what thoughts and considerations have been given there?

[75] **Ms Forsyth:** Through Marine Energy Pembrokeshire, we asked the developers what their key barriers were to development, and the grid came quite high on the list. So, we invited National Grid and Western Power Distribution to a meeting with developers to discuss where we go and how we move forward with it. From their perspective, it was pretty much a case of, 'If you've got the money, then we'll upgrade the grid.' So, a lot of work needs to be done now to consider how we go about this. Obviously, if you upgrade the grid in one area, the benefits would not necessarily be for just one developer, so we need to look at whether there is some kind of public-private partnership approach that we can take. These strategic areas—perhaps that is not the right term to use—will help to work out exactly what those areas are and where we need to prioritise those resources.

[76] In Pembrokeshire, we have a very unique situation where we have a fantastic wave and tidal resource, but we also have a 400 kV grid network. There is some work that needs to be done to connect between the land and the sea, and it will not be cheap, but if you compare this with other areas, it is good value for money. The work that is being undertaken by Halcrow on this marine infrastructure study will hopefully identify two things: where we need the grid upgraded; and what the capacity is. There is a level of uncertainty at the moment with the new Pembroke power station as to exactly what the capacity on the grid network will be. We need that information and we need it quickly. So, that is what we are looking at.

[77] **Dr Willis:** It is a problematic grid, but again, when you look at the resource in

Wales—and we mentioned how this overlaps with the marine conservation areas—it overlaps with where we have grid connections coming in. Wylfa power station for example is very close to the resource in Anglesey. There are issues with Milford Haven, but there is spare capacity on that grid, so we are very fortunate when we compare the position with that of our friends in Scotland, who are a long way from the grid. They can spend an awful lot of money and lose their power as they bring it down from north Scotland and the Orkneys down through to the conurbations.

[78] **Lord Elis-Thomas:** I am delighted that we are ahead of our friends in Scotland. *[Laughter.]*

[79] **Russell George:** Do you agree that, in involving the public in consultation, it is important to focus not just on the technology, but the wider issues with connection? I am also allowed to ask leading questions.

[80] **Ms Forsyth:** Certainly, it is something that we need to discuss with them, but we are very much at the starting point and the discussions we are having at the moment are very broad. However, you are absolutely right that we do need to start talking about some of the fundamental issues to do with the grid network and the landscape issues that could present themselves, but we have not done it yet.

[81] **Dr Willis:** You go to communities, such as St David's, and have information in a village hall showing one device going into their water for one year, and that is quite understandable. However, the challenge comes when you say, 'Right, we want to put a 100 MW farm in.' That is when community involvement suddenly comes up, so you have to involve them from the start and show them how they are going to benefit from it.

[82] **Lord Elis-Thomas:** The national park would be interested in that, as well as CCW, I would have thought, given the scale. However, these are issues that we have discussed with them in this committee, in fairness. We have discussed the question of the local environmental impact contrasted or set alongside what it does for us in terms of tackling climate change. That is the deep sustainability issue that it has to tackle as well.

[83] 10.15 a.m.

[84] **William Powell:** I was interested to hear what you said about community benefit, Tonia, and to hear Miles referring to recent activities in Fishguard, because, later this morning, Russell and I, with our Petitions Committee hats on, will meet a delegation from Fishguard regarding town centre regeneration, and we will share this conversation with them. My particular interest was in some recent announcements, first from Westminster and then here in the Assembly, regarding enterprise zones and related things. What are your views about the implications of the designation of the south-west of England as an energy enterprise zone—

[85] **Dr Willis:** Marine energy.

[86] **William Powell:** Indeed. In addition, how do you view, particularly in the Pembrokeshire context, the recent announcement from Mrs Hart regarding the Haven development?

[87] **Ms Forsyth:** The announcement on the enterprise zone for Pembrokeshire is relatively new, and we are yet to understand exactly what that will mean for Pembrokeshire, although we think that it is positive and that it again sends out a positive message for the industry. It will help to build that package to entice businesses to Pembrokeshire. On the announcement on the wave energy park for the south-west of England, we have been in touch

with them, and one of the members, Nick Harrison, has made a presentation to our group in the past so that we could learn from their experiences, because they are ahead of us. However, I have to say that there is a little frustration too, because we have the whole package in Wales and we need to grasp that opportunity. We could equally be the marine energy park for Wales, and we would welcome any moves that the Government might make towards that.

[88] **William Powell:** Maybe this energy park announcement could also be a focus for early work with the sector panel, which seems to be one of the issues that we have identified as an area for development.

[89] **Ms Forsyth:** Yes, definitely.

[90] **Dr Willis:** The energy enterprise zone in north Wales has been mooted by the energy island group as an asset to it. That is in its early stages and there is no specific marine energy input into that; it tends to be nuclear facing. However, certainly for offshore oil and gas, the skills are very similar and it will not take much to diversify the markets.

[91] On marine energy park status, no extra money went into that status. It was more a case of 'We've put a lot of money into it; let's call it something'. One would argue that, in UK terms, it creates a balance with Scotland to put something in the south-west of England. I went to a meeting with the legal profession, which looked at the long-term resource in the south-west of England. It is not particularly large. We did some work recently with Marine Energy Pembrokeshire, looking at the wave resource in the south-west approaches to Wales, and that is comparable, if not the same, as the south-west approaches to Cornwall and Devon. So, there is no reason—

[92] **Ms Forsyth:** Of course, we have tidal as well.

[93] **Dr Willis:** There is no reason why we cannot compete on marine energy park status.

[94] **David Rees:** To go back a little, we are discussing the new developments that are going on, because, as we have been told by others, marine is the new development that we are looking for, but technology-wise it is still developing. We have talked about test beds of up to 10 MW, and you mentioned a 100 MW array. How far off are we from commercially being able to put up such a 100 MW array, because we could put up a 100 MW array of windfarms tomorrow?

[95] **Dr Willis:** I was slightly misleading, because they would probably look at 30 MW arrays—three arrays and a bit. On the question of how far away 100 MW-worth of stuff in the water is, a 10 MW array is planned for Anglesey through marine current turbines. That is still classed as a commercial demonstrator. It is not necessarily a commercially viable farm producing electricity at that phase. They start to become commercially viable at around 30 MW. When will that be going in the water? It is not going to be this side of 2020. It is a long way off.

[96] **David Rees:** My concern, as I think that Vaughan has mentioned, is that we could have opportunities here to look at how we develop and lead in this area, if we get it right now.

[97] **Dr Willis:** Yes, the danger is—and it was mentioned in the House of Commons committee meeting last week—that, although the UK is leading this sector, especially in Scotland, and there is also some fantastic work going on in Wales and the south-west of England, we are only just leading it. Korea and France—I was there just after Christmas—are now buying up technologies. It is companies such as EDF and Siemens, which has just bought Marine Current Turbines. So the big outfits are now getting involved in this. A lot of large energy production companies are getting involved in the game, like RWE npower renewables,

Rolls Royce, and Alstom, and it is these large companies that we do not seem to be attracting to Wales at the moment and they are the ones that are required to take this forward, because they will be the ones running the companies.

[98] **David Rees:** Is that as a consequence of the situation with renewables obligation certificates, where we are clearly different from Scotland in that it is able to do five per unit, and we are not at that level yet?

[99] **Dr Willis:** The crucial word is ‘yet’—we suspect that we will be, and that there will be parity, with five ROCs for wave and tidal.

[100] **Lord Elis-Thomas:** Is that a result of the five ROCs—*[Inaudible.]*

[101] **Dr Willis:** I believe that it is finished in January, but they have not actually announced—

[102] **Lord Elis-Thomas:** You are optimistic about the outcome, are you?

[103] **Dr Willis:** Yes. The upshot is that RWE npower has now come back into Wales to look at the marine energy environment. I asked why, and was told, ‘Well, it is because now there’s potentially five ROCs of investment’. Previously, we would have been daft to come to Wales because we did not have the support of the ROCs.’ Of course, ROCs will not be around after 2017—or they will certainly be reduced in the energy market reform. What the industry needs to know, and what investors need to know, crucially, is what happens after that. I mentioned these large arrays, and they will not be in place by 2017, so what is the mechanism for support after that? There is uncertainty.

[104] **David Rees:** You mentioned that other countries were developing these technologies—Korea and France. Do we know what their position is post 2017? Do they have more certainty than we have?

[105] **Dr Willis:** I do not know, but their electricity companies are state-owned, are they not?

[106] **David Rees:** That is something we can talk about.

[107] **Dr Willis:** I do not know.

[108] **Lord Elis-Thomas:** I do not think that we can recommend that. Some of us might like to see the Central Electricity Generating Board back, but I do not think that it is going to happen right now. *[Laughter.]*

[109] **Mick Antoniw:** With all the technological exploration that is going on in the south-west and Pembrokeshire and so on, is it really the case that where we are failing is that we are just not selling ourselves? Is it that we are just not marketing what we are doing, and we do not have a Welsh brand for renewable marine energy and so on? Is that where we are going wrong?

[110] **Dr Willis:** I really think that it is. You only have to go to a trade exhibition in London and see the Scottish stand.

[111] **Lord Elis-Thomas:** Do not get me going on that.

[112] **Dr Willis:** It is not going to be overcome by marketing. You are going to need something to market. It is a two-stage process, and the two stages have to come together. If

one is lacking, then you do not get on. Part of the jigsaw that is missing is a joined-up marketing approach.

[113] **Mick Antoniw:** This is one area where the Welsh Government could make a valuable and relatively inexpensive investment.

[114] **Dr Willis:** I believe that it is starting to do that now. We had some proofs out recently of a joined-up marketing idea.

[115] **Lord Elis-Thomas:** Thank you for your evidence. Sorry, David Rees wanted to ask a further question. Sorry, I am always neglecting you, David.

[116] **David Rees:** I just have one small point, and perhaps I might be controversial here. The Low Carbon Research Institute has been put together, and you mentioned six institutions that you are working with. We have a history of institutions not working collaboratively. There are obviously many projects here, so my question is: are you now seeing those institutions working collaboratively, and are the projects using joined-up thinking, or are they still individual projects that are not yet coming together as a whole package?

[117] **Dr Willis:** That is a very valid question. When I started out, because I managed the process, I thought, ‘Crikey, this is going to be a challenge’. In fairness, from the researchers upwards, everyone is working collaboratively, including on projects. The way that we do this, we had a two-week field survey off the Welsh coast and all these researchers got together—there were 25 of them in a cottage working around the clock on the marine environment. You cannot get any more collaborative than that. So, on the researchers’ level, there is a fantastic collaboration—they have become friends; it is really good to see. The management level is also going through the system. I have noticed now that each university behaves with risk in different ways. The larger ones can take this financial risk in their stride—they can perhaps go for months without claiming and so on. However, with the smaller ones, they perhaps do not have that experience of working on fairly risky projects, such as ERDF-funded ones and other European-funded ones and the paperwork that goes with them. So, on the financial side for universities, there is a bit of a mismatch, but the spirit of collaboration is really good.

[118] **Yr Arglwydd Elis-Thomas:** Ac **Lord Elis-Thomas:** As a visitor to this yntau’n ymwelydd â’r pwyllgor hwn, aiff y committee, the last word goes to Alun Ffred gair olaf i Alun Ffred Jones. Jones.

[119] **Alun Ffred Jones:** I just wish to check something. Did I understand you correctly when you said that the devices going in off Anglesey would not be in before 2020? I presume that they are off the north-west coast, at Ynysoedd y Moelrhyniaid, as they are called in Welsh.

[120] **Dr Willis:** No, that is incorrect. They are starting the consenting process now. Their timeline will probably be a couple of years. I do not know exactly what it will be, but it will certainly not be after 2020; it will be before then. They are looking at other sites, such as Kyle Rhea under the Skye bridge, and they are also looking at Minas Basin in Canada. This is a global market; they will get an atlas out to look where the high spots are. There is loyalty to Wales, but it is a business environment and you go where the high spots are.

[121] **Lord Elis-Thomas:** Well, this has been really challenging for us, and we are very grateful to you. The combination of the local and the global in both presentations has been really challenging for us. Thank you very much indeed. Please follow our activities, and do e-mail us or even send us a message on Twitter or Facebook—we will take anything.

[122] **Dr Willis:** Thank you. May we ask a brief question?

[123] **Lord Elis-Thomas:** Yes.

[124] **Dr Willis:** What happens after this process? Where does the information get collated, and what is the next step in this process?

[125] **Lord Elis-Thomas:** On my left you will see the senior intelligence in our committee research: our adviser in this matter. We will write a detailed report, and that will be published by the committee, hopefully and optimistically as early as possible after Easter, so that we are a timely part of the process. That will then be debated in the National Assembly after it has gone to Government, as there has to be a full Government response. I do promise you that one thing that we will do is to make this a high-profile public intervention by all of us as committee members. We have already discussed the possibility of taking ourselves on a little tour to explain exactly what the report's recommendations could mean for people, especially for communities that take a strong view, quite rightly, on the way in which they have not been involved properly, as you heard from us, in these matters. So, we aim to be contributors to the process of change in the status and effectiveness of renewable energy in Wales.

[126] **Dr Willis:** Excellent. We look forward it. Thanks for the opportunity.

[127] **Lord Elis-Thomas:** Thank you for helping us in this job.

[128] I welcome our next set of witnesses, representing the Marine Management Organisation and the Crown Estate. We are very grateful to you for joining us.

10.30 a.m.

[129] Byddai'n well i mi ei ddweud yn Gymraeg, gan fy mod yn arfer cychwyn pwyllgor yn Gymraeg. Mae'n dda gennyf groesawu'r tystion o'r Sefydliad Rheoli Morol ac Ystâd y Goron. Byddwn yn ddiolchgar pe byddech yn fodlon cyflwyno'ch hunain i'r pwyllgor. Os ydych am roi disgrifiad sy'n ychwanegol at eich papur, byddem yn croesawu hynny cyn i ni ofyn cwestiynau.

I had better say it in Welsh, as I usually begin committee in Welsh. I am pleased to welcome witnesses from the Marine Management Organisation and the Crown Estate. I would be grateful if you would introduce yourselves to the committee. If you wish to provide a description in addition to your paper, we would welcome that before we go into questions.

[130] Are you the chair, Dr David Tudor?

[131] **Dr Tudor:** I would not go that far. *[Laughter.]*

[132] **Lord Elis-Thomas:** You are the chair from that side of the table. Get your colleagues going, and then we will move on to questions.

[133] **Dr Howell:** Thank you for inviting me here today. My name is Dickon Howell, and I am the head of marine licensing for the Marine Management Organisation. My remit within the Marine Management Organisation covers the licensing of infrastructure, essentially—everything from slipways and jetties all the way up to renewable energy, nuclear power stations and major ports. As I set out in our written evidence, we work very closely with the Infrastructure Planning Commission in England. In Wales, we work very closely with our colleagues in the Welsh Government.

[134] Within Wales, we took over responsibilities under section 36 of the Electricity Act 1989 from the Department of Energy and Climate Change in April 2010 for all energy

installations under 100 MW. We are currently working on one such installation off Anglesey with the Welsh Government.

[135] That is all from me at the moment. I am happy to take any questions on how we work with the Welsh Government, how we work in England and how that can be applied in Wales.

[136] **Dr Tudor:** My name is David Tudor, and I am the senior marine policy and planning manager for the Crown Estate. The Crown Estate is a unique organisation. We own or have responsibility for the UK sea bed, so, essentially, we manage and own up to the 12 nautical mile limit for various activities around the UK. Beyond that, from 12 nautical miles to the 200 nautical mile limit or median lines between countries, we have certain responsibilities. The responsibility that is pertinent to this inquiry is the one that we have through the Energy Act 2004 for leasing renewable energy sites—that is, sites for wave, tidal and wind energy.

[137] We also have responsibility for lots of other activities, such as aggregate extraction. The Energy Act 2008 also vested in us the rights to lease sites for carbon storage under the sea bed. Aquaculture is a big part of our work as well.

[138] Essentially, the Crown Estate, through the Crown Estate Act 1961, works to the principle of enhancing the value of the estate and generating income, and that revenue is returned to the UK Treasury. We do all that under the auspices of good management and we also have a stewardship responsibility.

[139] **Lord Elis-Thomas:** Some political colleagues of ours seem to think that you are owned by the Queen. It might be helpful if you were to explain that you are a UK estate public body that functions according to an Act of Parliament.

[140] **Dr Tudor:** Yes, that is absolutely right. I guess that you could say that the name is an ancient name, as we are called the Crown Estate. As I said earlier, we are not a regulator and all our income goes straight to the Treasury. We are not linked to the monarch in that sense at all. We are a UK public body; that is right.

[141] **Lord Elis-Thomas:** I obviously knew that, but it appears not to be understood by some people. I am not naming names, of course. Toby, do you want to add anything?

[142] **Mr Gethin:** I am Toby Gethin from the Crown Estate. I will not repeat everything that David said about the Crown Estate. I work as a consents adviser for the Crown Estate, specifically for wave and tidal energy.

[143] **Lord Elis-Thomas:** Vaughan, would you like to kick off?

[144] **Vaughan Gething:** Yes. Following on from the first evidence session this morning about the role and the linkage between the Marine Management Organisation, the Crown Estate and developers, we have heard people say that there is a real opportunity for jobs and investment, but that we need to do something now. That leads me on to a question that I asked earlier, which is: what is your current linkage with the Welsh Government and the UK Government, and how easily do you think you can make it for developers to develop and invest in marine energy technology around Wales, because there appears to be a genuine opportunity for all of us?

[145] **Dr Tudor:** I will start on that one. As I mentioned earlier, the Crown Estate is not a regulator. We are proactive in our activity, and we try to work that interface between Government and industry. We are heavily involved in working with the UK Government, the Department of Energy and Climate Change in particular, the Department for Environment, Food and Rural Affairs and the Department for Business, Innovation and Skills. We are

heavily involved in working with all of the devolved Governments, particularly the Welsh Government. For example, I was with the chief energy adviser on Monday, and I was with Welsh Government officials last week and the week before. So, we have regular contact with Government.

[146] Essentially, we facilitate the delivery of Government policy. All the work around renewable energy hinges on Government policy, and we help to deliver that. Our role is to help to facilitate industry and to provide areas of sea-bed lease. We might give an agreement for a lease or an exclusivity agreement to search. Then, the regulator, whether it is the Marine Management Organisation or the Welsh Government, with advice from the Countryside Council for Wales, will have to go through the regulatory process. If that has been done, we will issue a lease. That is our part.

[147] **Dr Howell:** I will start by telling you how we operate in England in terms of our linkages with UK Government, facilitating that whole process. The MMO is a delivery body, set up to deliver Government policy through our regulatory functions. On renewable energy, that is mainly through our duty under the Marine and Coastal Access Act 2009, which incorporated the Electricity Act 1989, and through marine planning. I am head of the marine licensing team, but I work closely with the marine planning team.

[148] In England, we are setting up a system of plans, which will be in place by 2022. We are going around our seas, and our first plans are going to be on the east coast of England. When those plans are set out, they will not only be a spatial representation of the evidence but will include some interpretation of policy, so that we can provide signposts to developers about what we think should be going where, and how to resolve conflict. There will be a small amount of firm constraints about 'this must go here, or this must go there'. Those firm constraints will often be around existing infrastructure such as gas platforms or existing turbines.

[149] That planning system will provide a regulatory framework within which we, as the consenting part of our organisation, can make consenting decisions in a proportionate way, and in the way that is best for sustainable development in England. That is how we work in England. We work closely with our sponsor departments, and we have five sponsor departments—DEFRA, DECC, the Department for Transport, Community and Local Government and the Ministry of Defence. We answer to all of them, and as such we are a unique public body.

[150] On how we work in Wales, as I said earlier, we have responsibility under section 36 of the Electricity Act 1989 for anything under 100 MW in Wales. The Welsh Government has to give consent for all the marine licensing parts of that development under the Marine and Coastal Access Act 2009. In Wales, we work side-by-side with our colleagues in Welsh Government. We would encourage developers to provide one environmental statement that covers all of the different pieces of the legislation. We work closely with our colleagues in the Welsh Government, normally with them as lead regulators. We are very keen, wherever possible, to cut down on the administrative burden for developers, ensuring that the consenting process is as efficient as possible.

[151] I cannot comment on how easy we can make it for developers to invest in Wales, because, as a delivery body, we deliver Government policy. There was some discussion earlier on having one single point of contact and a single body. How we work with the Crown Estate in England is a good example of that, in that the Crown owns the sea bed, it does a resource analysis of what it thinks it can get out of that resource, and we play a proactive role as the regulator, in terms of licensing and planning, in talking to developers early on in pre-application, so that, when they get to the application process, their applications are fit for purpose and ready to go through.

[152] **Vaughan Gething:** The obvious follow-up question, then, is about the differences between England and Wales and whether one has more of an advantage than the other. Having set out how things are done in England, or how things are done in Wales, some people come to us with the view that it is actually more difficult to get this done in Wales. From your point of view of consenting and licensing in England compared with the system here, does it look more complex, bearing in mind the Welsh Government's consenting ability of up to 1 MW, which is one turbine?

[153] **Dr Howell:** On the bare facts of it, there are more bodies involved. In England, we are responsible for consents of up to 100 MW; consents of over 100 MW are done by us and the Infrastructure Planning Commission. In Wales, consents of up to 100 MW are done by us and the Welsh Government, and consents over that are done by the Infrastructure Planning Commission and the Welsh Government. So, there are more bodies involved. Practically, the process is very similar. As I have said, we work closely with the Welsh Government, and I would like to think that the fact that there are two consenting bodies involved does not increase the burden on the developer. We ask for the same evidence, effectively, for both consents. On the face of it, there are more bodies involved but, practically, it is the same process.

[154] **Vaughan Gething:** In promoting the availability of a resource and providing information to developers in the pre-development consultation, is that easier around English or Welsh waters? If it is effectively the same—with the same opportunities and difficulties—it would be helpful to understand that as well, because that is not the message that we always get in this inquiry.

[155] **Dr Howell:** That is probably a question for David, and I think that he will want to comment on it. Promoting energy resource in England, Wales, Scotland or the UK, is a role for Government in terms of setting out the policy direction that it wants the industry to follow. We deliver that policy; therefore, if someone comes to us and says that this opportunity has been highlighted, and they now want to deliver it, we will help them through that process. Marine planning will set out the framework within which any development can be consented and moved through the regulatory process. David does more in promoting the industry, which he referred to earlier when he said that he was facilitating the process, because the Crown Estate has a resource that it needs to utilise.

[156] **Dr Tudor:** For the Crown Estate, the resource information and the data are equally available to developers, whether they want to develop in Wales, England, Scotland or wherever it might be. As a personal view on the regulatory regime, the Crown Estate never applies for consents; we just hear it from developers. However, the first off-shore windfarm in the UK was in North Hoyle off the north Wales coast. So, that shows that it can be done. There are not many wave and tidal devices in the water yet, so I suggest that it is the embryonic nature of the technology and the unknowns around the environment that is more of an issue than the fact that there are different regimes in England and Wales.

[157] **Lord Elis-Thomas:** That is helpful, because one of the focuses of this committee is to ensure that whatever happens in Wales is equally efficient and effective, if not more so, than what happens in that other place called Scotland or, indeed, in England or Northern Ireland.

[158] **Alun Ffred Jones:** I have two pertinent questions. One is to the Marine Management Organisation: why is there no formal arrangement in place between you and the Welsh Government for dealing with marine energy projects that require multiple consents?

[159] **Dr Howell:** We have a draft memorandum of understanding in place with the Welsh

Government regarding all our regulatory functions, namely, fisheries, marine licensing and marine planning. When that memorandum was being drawn up, we realised that it would be easier to have separate memoranda with separate departments for fisheries and marine licensing. We are currently working on how that would look. There is also the potential for a single environmental consenting body in Wales, and we need to wait to see what that would look like. The draft memorandum of understanding is in place, but it became almost too unwieldy, because we were dealing with many different parts of the Welsh Government. The draft is in place, and the intention is to firm that up in the next financial year with whatever body is in place within the Welsh Government at that time.

10.45 a.m.

[160] **Alun Ffred Jones:** So, there is an intention to create a single body in Wales.

[161] **Dr Howell:** It is my understanding that the nature conservation agencies are being looked at: Environment Agency Wales, the marine consents unit and Forestry Commission Wales. I believe that there will be a consultation on that in the summer.

[162] **Lord Elis-Thomas:** That is a separate piece of work to the one that we are doing now in the committee.

[163] **Dr Howell:** I am sorry.

[164] **Lord Elis-Thomas:** That is fine.

[165] **Dr Howell:** I was just mentioning it in relation to the memorandum of understanding.

[166] **Lord Elis-Thomas:** We have not finished our letter to the Minister on the single environmental body, but we assume that this body will likely appear in one form or another. If so, will your MOU be with that body?

[167] **Dr Howell:** It will be with that body and with the fisheries department. Effectively, in England, we have moved marine planning, licensing, nature conservation management and marine fisheries into one body. In Wales, these matters are split into separate departments.

[168] **Alun Ffred Jones:** I have a question for the Crown Estate: could you please explain what is covered by the letter of intent that was signed by you and the Welsh Government in March 2011?

[169] **Dr Tudor:** The letter of intent was around port facilities and facilitating port infrastructure for renewable energy. We have a similar agreement with DECC in Whitehall. We do not own many ports in the UK, or indeed in Wales. The idea is that, if a developer needs—or has the ability—to deploy marine devices and needs port facilities, we would look to work with that developer and, in particular, the Welsh Government to see if we could accelerate that development. We might look to invest or to co-operate with the port authority or owner—that kind of thing. No specifics have come from that. As you know, there is yet to be any extensive development of wave and tidal devices around Wales. However, the letter of intent, as the name suggests, is an intent to work together to facilitate the delivery of port facilities for renewable energy.

[170] **Alun Ffred Jones:** So, this is specifically about ports.

[171] **Dr Tudor:** It is about port infrastructure for renewable energy.

[172] **Alun Ffred Jones:** You mentioned that your part in this process is to facilitate,

though you obviously generate revenue as well, do you not? Given that sea and land off the coast of Wales are Welsh resources and assets, would it not make sense for the property of the Crown Estate in Wales to be transferred to the Welsh Government?

[173] **Dr Tudor:** That is not something on which I could comment. It is an issue for Whitehall and the Welsh Government to discuss. The Crown Estate will work under the Crown Estate Act 1961, as it was laid down. Until that changes, or until someone tells us to work in a different way, we will continue to do that. So, that is not an issue on which I can comment.

[174] **Lord Elis-Thomas:** That was a very good answer, if I may say so.

[175] **William Powell:** What are the detailed working arrangements that are in place between you and the infrastructure planning authority?

[176] **Dr Tudor:** That is a question for the MMO. We do not have any formal arrangements.

[177] **Dr Howell:** We have a 'ways of working' section on the Infrastructure Planning Commission website. Advice note 11 sets out how we work with the Infrastructure Planning Commission. I will run through how things work with the IPC. When a developer has a nationally significant infrastructure project, as set out in any of the national policy statements, it effectively has two options: it can either apply to the IPC for a development consent order that includes a deemed marine licence for all marine aspects of that work; or it can apply to the IPC for a development consent order and apply to us separately for a proper marine licence. The majority of developers choose to keep everything in one package with the Infrastructure Planning Commission. We work very closely with the IPC. However, before an application gets to the point where it is ready to be submitted, with all of the environmental statements and evidence that it needs behind it, there is an extensive period of pre-application work. As the marine statutory adviser, we essentially work with a developer, for one to two years in some cases, to get its application to a point where we are happy that if it was submitted to us, we would consent.

[178] So, we will work through all of the stages of the environmental impact assessment process with them, through screening, scoping and mediating those conversations with all our nature conservation advisers and all other interested parties, even getting to the point where we will draft a draft deemed marine licence with all of the conditions that we think that are necessary for it. That then will go to the Infrastructure Planning Commission, which will consider that environmental statement alongside all the other associated works within that application.

[179] **William Powell:** One thing that has bedevilled many of the onshore wind-energy projects has been problems around community engagement and the perception of community benefit. Are there any particular aspects of the work that you undertake that you feel would be relevant to our study in that area?

[180] **Dr Howell:** There are two aspects: one is at a more strategic level and one is associated with consents. At a more strategic level, the whole system of marine planning that we are putting in place is very much about getting stakeholder engagement and making people understand how the plan is going to affect their area. For example, in relation to the plans in the east of England that my colleagues are putting together, we have done a report, which is on our website, that looks at the impact that those marine plans are going to have on coastal communities and deprivation, making sure that the marine plans are integrated with local development frameworks, unitary plans and the terrestrial planning system.

[181] When it comes to licence applications, there is a statutory system of consultation that these projects have to go through. On top of that, we strongly encourage developers to hold road shows and to engage with the local community in the pre-application stage, as was discussed in the last session.

[182] **Mark Drakeford:** You said, Dr Tudor, that the Crown Estate does not own many ports. However, Milford Haven is a Crown port, is it not? Am I right about that?

[183] **Dr Tudor:** No, Milford Haven Port Authority is the majority owner and runs that port. However, we own certain tracts of land around it. We own the sea bed within the haven itself, rather than the port. So, we lease jetties and wharfs within the haven.

[184] **Mark Drakeford:** The Minister for Business, Enterprise, Technology and Science suggested that she was interested in an enterprise zone for the haven waterway and said that part of her thinking on that would require some further discussions with the UK Government because it includes a Crown port, as her statement said. Are you satisfied that the machinery exists to carry out those discussions with the necessary speed in a way that will lead to the fruitful outcome that we would look for?

[185] **Dr Tudor:** From our point of view, the mechanisms are in place to have those discussions. Frankly, I do not know enough about that particular issue to be able to comment much further, I am afraid. I am happy to go back and look into it to see what our role is, and to see if we have had any contact on that issue, but I generally do not know anything about it, I am sorry.

[186] **Dr Howell:** I can comment on that. Milford Haven is a trust port, which means that the Secretary of State has the ability to appoint members to that board. I believe that there are some discussions between your Minister and Ministers in the Department for Transport around that. Those discussions are ongoing, so I am not sure that it is appropriate to comment on them in this forum. However, that is what they are talking about.

[187] **Lord Elis-Thomas:** Thank you for that one. Antoinette Sandbach will now ask a question.

[188] **Antoinette Sandbach:** Dr Howell, what discussions have there been on the preparation of this single environment body? There has been an announcement by the Minister that he is looking to create a single environment body. It is not clear what form that will take, however, it seems clear that it will definitely include the Environment Agency and the Countryside Council for Wales. To the extent that they have an input into marine consenting, as it were, what co-ordination has there been with you, if any? Have there been any discussions with you on that?

[189] **Dr Howell:** I was talking to my colleagues in the Welsh Government yesterday.

[190] **Antoinette Sandbach:** Was that the first time that you had spoken to them?

[191] **Dr Howell:** No, I believe that we have been invited to provide evidence to the discussions. That evidence would be very similar to what I am saying here, in that we will work with whatever body is in Wales, within the regulatory framework that we have, and we will work in a manner that makes the consenting process as efficient as possible. I do not think that we have a strong opinion on what shape that body should take.

[192] **Antoinette Sandbach:** With your experience in England, does that mean that you have a relatively broad experience of marine consenting?

[193] **Dr Howell:** Yes, I would say so. In and around England, we do all the marine consenting. We have taken over the responsibility from Natural England for wildlife consenting and for protected species. So, if you were looking at marine consenting and the management of fisheries and nature conservation sites, certainly we have experience of that, and we would be more than happy to share it.

[194] **Antoinette Sandbach:** It appears that the Welsh Government's marine policy statement 2009 indicates that it encourages developers to seek consent using the powers under the Transport and Works Act 1992. Have you come across that? How does it interact with your role?

[195] **Dr Howell:** I have not come across that, I am afraid. The legislation that we deal with is the Marine and Coastal Access Act 2009, the Electricity Act 1989 and the Harbours Act 1964, for general marine licensing, licensing of energy infrastructure and harbour revision and empowerment orders for non-fishing harbours in Wales, specifically, but for all harbours in England.

[196] **Mr Gethin:** My understanding is that the Transport and Works Act 1992 is still one possible route for developers to get consent. As far as I am aware, not one development has actually got consent through that route in the UK, certainly not in England and Wales. It is quite a complicated and potentially more difficult route to get consent than the current process that we have in terms of a marine licence. It does exist, but it is possibly slightly more painful than going down the other route.

[197] **Antoinette Sandbach:** I would like to ask a final question to the Crown Estate. Is there any distinction in the treatment of Wales and any other devolved or non-devolved part of the United Kingdom in terms of the Crown Estate and its approach to licensing?

[198] **Dr Tudor:** Not at all. The only difference that I can think of between the countries is that we have a signed memorandum of understanding with the Welsh Government and that is the only one that we have. It is only a positive difference for Wales, but we treat all areas exactly the same.

[199] **Lord Elis-Thomas:** So, really, it is possible that we are treated better because of the MOU. *[Laughter.]*

[200] **Antoinette Sandbach:** I would briefly like to put on record that I have an interest, which is on my register of interests, in the Llys Dymper consents, so I will not ask you anything about that. I only wished to put that formally on the record.

[201] **David Rees:** I want to move on to the marine conservation zones aspects and status. Have you had any discussions with the Welsh Government as to the development of the marine conservation zones? What impact will that have upon the way in which the conservation zones will operate within Welsh waters?

[202] **Dr Tudor:** We have had quite a number of discussions. Across the UK, a marine conservation zone or a new designation area is of relevance to the Crown Estate. We are heavily involved in the technical advisory groups, and we are a member of the Welsh Government's technical advisory group. I had a teleconference the day before yesterday with the Welsh Government's marine policy branch, discussing the whole process of the MCZs. Wales is already heavily designated because of the quality of its coastline and sea bed area for special areas of conservation and special protection areas, and the MCZs will add an extra high level of protection, which is most welcome.

11.00 a.m.

[203] The Crown Estate has an input with regard to our remit for resource management. So, as well as our general experience of marine management, our input is to say whether an area is good for wave or tidal energy, whether it has potential for wind, or whatever it may be, and to feed that into the process. We are not a decision maker, but we are an adviser. Once the consultation is made public, we also input to that, but we have the opportunity and ability to help to advise Government on our remit and on marine management.

[204] The MCZs and marine conservation as a whole are so important that the Crown Estate will work to try to put development where it is not harmful. So, it is a positive thing for Wales. The extra high level of protection is important. There may be a relatively small number of sites within current designations, but it will still allow for development, whether it is around ports or the emerging wave and tidal energy.

[205] **David Rees:** Will it have an impact on the targets set by the Welsh Government for marine energy?

[206] **Dr Tudor:** It is difficult to pre-empt what will come forward from the MCZ process. The honest answer is that I do not think that it will.

[207] **Lord Elis-Thomas:** This is obviously of great interest to us, but is it your view that the high level of conservation regimes that we already have—with CCW being the current main player, on behalf of the European Union and Welsh Government, although in future it will be the single environmental body—will not prevent the significant commercial development of the marine resource?

[208] **Dr Tudor:** With regard to designated sites, whether they are European sites, SACs or the new MCZs at a national level, it depends on what the site is designated for and what activity you want to do in it. So, if the activity does not affect the integrity of that site, then it should rightly go ahead. CCW, the advisers and those consenting must take all of that into account. The development of offshore wind and wave and tidal is not impeded on a great scale by the conservation zones. There are obviously places where it would be inappropriate to put a development, which is fine, but the system allows for development to continue outside and sometimes within sites. That might not be the case within the new highly protected marine conservation zones, where there will be no activity, but if they are highly prized for their nature conservation, then they should rightly be protected.

[209] **Mr Gethin:** The tidal device off Pembrokeshire is within a special area of conservation, so it is not necessarily the case that designated sites can pose a total block to development. It may require more survey work and a higher level of certainty that the development will not have an impact on protected species or habitats, but that example off Pembrokeshire shows that development can go ahead.

[210] **David Rees:** Yes, but that is effectively a test site, so there would obviously be some further considerations were it to become a commercial site generating more energy.

[211] **Dr Tudor:** You are right; the scale of the development will be a consideration in future developments in conservation designations.

[212] **Mr Gethin:** As we learn from that site and other test sites around the country, we will get a better understanding of the interactions with the environment. We all hope that those interactions are as little as possible, and that you can scale up a little within potentially highly sensitive sites.

[213] **David Rees:** I have a separate question. You mentioned earlier your discussions on

planning. We are talking about offshore developments, but there are associated onshore developments. Have you worked with local authorities and other bodies to see how they can become effective in the planning process, so that we do not have a situation where the marine side states that something can be done, but the associated development then causes a problem?

[214] **Dr Howell:** The developments that are above 100 MW are consented by the Infrastructure Planning Commission, on land and at sea. The Infrastructure Planning Commission was put in place to facilitate that and to take a holistic approach to consenting development. For developments under 100 MW, we work closely with our colleagues in local planning authorities and, similar to how we work with Welsh Government, where we have different consents, we would be consenting under the Marine and Coastal Access Act 2009 and it will be consenting under the Town and Country Planning Act 1990. We will work those processes in parallel from the beginning, from the pre-application phase. Both of us, under the environmental impact assessment directive, have to consider the project as a whole when we make our decisions. Our expertise is in the marine field and the local planning authority's expertise is in the terrestrial field, so we have to work very closely together to ensure that any application that goes through is compliant.

[215] As far as the planning process is concerned, our planning team is very aware that one of the most difficult things that it has to consider is how to plan across the land-sea interface. It is working very hard with local planning authorities on the east coast of England at the moment—that is where our first marine plans are—to ensure that that transition across the land-sea interface is done as effectively as possible.

[216] **Lord Elis-Thomas:** I am looking at your fine map of the Irish sea, the Celtic sea, or whatever else it is called; you have referred to your Ramsey Sound tidal development, but is there anything that you would like to tell us about the Skerries tidal development off Anglesey?

[217] **Mr Gethin:** I think that it was talked about in the previous session, so I do not want to largely repeat what has already been said, as that would not be particularly useful. However, my understanding is that Marine Current Turbines made an application last year to the Welsh Government and to the MMO. Dickon may be able to give further information on how the determination is going, but my understanding is that the determination process is ongoing. It is an application for seven or eight devices, I think, up to 10 MW. Once that determination is made, if it gets consent, it will be one of the first demonstration commercial arrays out there.

[218] **Lord Elis-Thomas:** It is still classified as a demonstration project, but it is towards the commercial end rather than what is happening at Ramsey Sound, is that right?

[219] **Mr Gethin:** Yes.

[220] **Dr Howell:** On that point, Toby is exactly right; the application is in at the moment, and we are in the determination phase. So, it is difficult for me to comment any further on that, I am afraid, because it affects the decision making. Suffice it to say that, as far as I am aware, the whole process has gone quite smoothly. As soon as we can, we will be making a determination on it.

[221] **Lord Elis-Thomas:** That is a very helpful answer. It is always a pleasure in this committee to hear about aspects of planning that are going smoothly, as that is not always the case. Do Members have any more questions? Mick?

[222] **Mick Antoniw:** David asked the question that I was going to ask, and it has been

answered.

[223] **Lord Elis-Thomas:** Therefore, we thank you again for enlightening us on your activity and especially on the way in which you seem to be able to straddle the whole area of potential commercial development with regard to the ownership of the estate and also the consultation on consents. It seems to us to be an admirable model—at least at first sight. We will consider it further, no doubt, when we come to write our report. We are very grateful to you. Diolch yn fawr.

[224] **Vaughan Gething:** I would like to raise a point on the energy sector panel. I think that I mentioned earlier that I wondered whether it would be worth our while asking the energy sector panel whether it wanted to comment on the evidence that we have heard today, about how joined up it thinks it is, and the sort of opportunities that have been described to us in the first session. It is potentially quite exciting and important for us to ask it whether it has any comments. I am not suggesting that we ask it to come back to give oral evidence, but it might be interesting to have some written comments on the evidence that we have heard today and the opportunities that the first two witnesses set out, which are available to us.

[225] **Mick Antoniw:** Do you mean Marine Energy Pembrokeshire's suggestion?

[226] **Vaughan Gething:** Yes.

[227] **Lord Elis-Thomas:** We have done this before. I have asked the chair of the Countryside Council for Wales to send us various letters on things that have happened here and some have come unsolicited when people have been misrepresented in later evidence. So, we can certainly write formally on this point.

[228] **Mick Antoniw:** It was a very precise point that was made. They had clearly given a lot of thought to it and it is worth pursuing it a little.

[229] **Lord Elis-Thomas:** Shall we do that, then? I see that you agree that we should.

11.10 a.m.

**Cynnig o dan Reol Sefydlog Rhif 17.42(vi) i Benderfynu Gwahardd  
y Cyhoedd o'r Cyfarfod  
Motion under Standing Order No. 17.42(vi) to Resolve to Exclude  
the Public from the Meeting**

[230] **Lord Elis-Thomas:** I ask someone to move the motion.

[231] **David Rees:** I move that

*the committee resolves to exclude the public from the remainder of the meeting in accordance with Standing Order No. 17.42(vi).*

[232] I see that the committee is in agreement.

*Derbyniwyd y cynnig.  
Motion agreed.*

*Daeth rhan gyhoeddus y cyfarfod i ben am 11.10 a.m.  
The public part of the meeting ended at 11.10 a.m.*