Cynulliad Cenedlaethol Cymru
The National Assembly for Wales

Y Pwyllgor Amgylchedd a Chynaliadwyedd
The Environment and Sustainability Committee

Dydd Iau, 3 Tachwedd 2011
Thursday, 3 November 2011

Cynnwys
Contents

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
Yr Arglwydd/Lord Elis-Thomas	Plaid Cymru (Cadeirydd y Pwyllgor) The Party of Wales (Committee Chair)
Rebecca Evans	Llafur Labour
Russell George	Ceidwadwyr Cymreig Welsh Conservatives
Vaughan Gething	Llafur Labour
Llyr Huws Gruffydd	Plaid Cymru The Party of Wales
Julie James	Llafur Labour
William Powell	Democratiaid Rhyddfrydol Cymru Welsh Liberal Democrats
David Rees	Llafur Labour

Eraill yn bresennol
Others in attendance

Wayne Cranstone	Cyfarwyddwr Datblygiad a Prosiectau, npower renewables Development and Projects Director, npower renewables
Steve Knight-Gregson	Arbennigwr Pennaf dros Brosiectau Mawr, Y Grid Cenedlaethol Principal Specialist for Major Projects, National Grid
Janice McLaughlin	Cyfarwyddwr Prosiect—Cymru a Lloegr, Scottish Power Renewables Project Director—England and Wales, Scottish Power Renewables
Sam Peacock	Pennaeth Materion Cyhoeddus, SSE Head of Public Affairs, SSE
Colin Taylor	Pennaeth Dylunio, Rhwydweithiau Ynni Scottish Power Head of Design, Scottish Power Energy Networks
Simon Wells	Pennaeth Cyfraith Cynllunio ac Amgylcheddol, RWE npower Head of Planning and Environmental Law, RWE npower

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

Dr Virginia Hawkins	Clerc Clerk
Catherine Hunt	Dirprwy Glerc Deputy Clerk
Graham Winter	Y Gwasanaeth Ymchwil The Research Service

Dechreuodd y cyfarfod am 9.39 a.m.
The meeting began at 9.39 a.m.

Ymchwiliad i bolisi ynni a chynllunio yng Nghymru—Tystiolaeth gan gwmnïau ynni: Ystyried ynni adnewyddadwy
Inquiry into energy policy and planning in Wales—Evidence from energy companies: Consideration of renewable energy

[1] **Yr Arglwydd Elis-Thomas:** Bore da a chroeso i'r bumed sesiwn dystiolaeth ar ein hymchwiliad i bolisi ynni a chynllunio. Mae dwy ran i'r sesiwn lle byddwn yn gyntaf yn ystyried ynni adnewyddadwy ac wedyn yn ystyried materion yn ymwneud â'r rhwydwaith a'r grid. Yr wyf yn ddiolchgar iawn ichi am eich presenoldeb.

Lord Elis-Thomas: Good morning and welcome to the fifth evidence session on our inquiry into energy and planning policy. There are two parts to our session in which we will first consider renewable energy and then consider issues associated with the network and the grid. I am very grateful to you for your attendance.

[2] Simon, do you wish to introduce your colleagues?

[3] **Mr Wells:** We will introduce ourselves. Do you want to start, Wayne?

[4] **Mr Cranstone:** I am Wayne Cranstone, director of onshore development and projects at RWE Npower renewables.

[5] **Mr Wells:** I am Simon Wells, head of planning and environmental law at RWE Npower. May I take this opportunity to explain why there are two people here from RWE?

[6] **Lord Elis-Thomas:** That is fine by me.

[7] **Mr Wells:** The emphasis of this session, as you have said, is on renewables, but the inquiry's original terms of reference included wider energy issues, and Npower clearly has a variety of wider energy issues within Wales and, therefore, we felt that it was appropriate that we should cover the Npower side as well as the renewables side.

[8] **Mr Peacock:** I am Sam Peacock and I work on energy policy and planning at SSE plc. You may know SSE plc as Swalec, which is the supply brand, and we are also a major generator and investor in Wales. We have three primary sites in Wales, one of which is a coal-powered station at Uskmouth and we are beginning to build a gas-powered station at Abernedd. We are also involved in the Nant-y-moch windfarm in Ceredigion.

[9] **Ms McLaughlin:** Good morning, I am Janice McLaughlin and I am representing Scottish Power Renewables. I am the director responsible for our onshore windfarm developments in England and Wales. My colleague Colin Taylor will come in for the session on the grid to answer questions relating to the grid and networks.

[10] **Lord Elis-Thomas:** Thank you very much for the papers that we have received. David, would you like to start the questions?

[11] **David Rees:** Yes. Good morning, and thank you for your papers. You show quite a mix and diversity of technologies in your energy generation, and I am glad of that, because it is a wider range than just renewables. Where do you see the mix in Wales going over the next 10 to 15 years? Ignore the planning problems that you might come across.

[12] **Lord Elis-Thomas:** If only we could. [*Laughter.*]

[13] **Mr Wells:** We are aware of the Welsh push and the wider push across the UK towards meeting renewables targets to meet climate change targets, and so on. We would see

that continuing to evolve over the next 15 years, which is the timescale that you indicated. However, in that time, we are not going to move to the level of renewables that we want—the 2050 target is a highly ambitious target. There will be a limited amount of movement towards that over the next 15 years, so other forms of generation and a mix of generation will still be required in that time. Even if the 2050 target were to be achieved, you need another generation of nuclear or gas-type stations in order to ensure the security of energy supply, certainly over the next 15 years and probably beyond 2050.

[14] **Mr Peacock:** The UK Government is currently looking at an electricity market reform process that will change all the incentives for different forms of low carbon plant, be they subsidies for renewables or for nuclear, and also ways of incentivising more flexible plant back-ups, such as gas. At the moment, we are not exactly sure what levels of support there will be—that is all out there—and that will have a huge impact on the exact mix that we will see in Wales.

[15] Wales has good opportunities for renewables. You have good wind speed and some good areas for that; I guess that we will come on to that later. You have some potential offshore sites for wave and tidal power and offshore windfarms. So, Wales is a good fit for renewables.

[16] **Mr Cranstone:** From our point of view on the renewables side, we are developing all types of renewables such as offshore and onshore wind power and wave and tidal power, although not as much of the latter as it is a bit further behind the development of wind technologies. We are very keen to spread across all of those different technologies, and onshore wind and offshore wind technologies in particular are the ones that will make a big impact in terms of targets in the short-term.

[17] **David Rees:** In relation to renewable technologies, where are you at? Which are more efficient? We talked about wind power being the current technology, but I am often told that wind turbines are not very efficient. Is it the best way forward? Where are we at with the technologies?

9.45 a.m.

[18] **Mr Cranstone:** Onshore wind generation is more mature than offshore generation, though offshore is beginning to get there. We are fortunate in the sense that we produce about 50 per cent of Wales's wind energy. We have about seven onshore projects in Wales and two offshore at North Hoyle and Rhyl Flats. We are currently building Gwynt y Môr, which will be 576 MW on its own. We also have six hydroelectric power stations, and we have quite a proud history of that in Wales, as we have been operating some of them for over 100 years. We are developing all three technologies, but, in terms of the greatest scale, that will be from offshore wind, and, as I said, we have already built two and are building the third now. We are developing the Atlantic Array, which we hope will be 1.5 GW. So, there is a greater order of magnitude compared with some of the onshore sites. We are also developing 600 MW of onshore generation in Wales as well. So, there are some sizeable projects to come through.

[19] With regard to efficiency, the capacity factor of offshore generation is higher than onshore. It typically has a capacity factor of up to 40 per cent, whereas for onshore it might be 30 to 34 per cent. That is the measure of the amount of time that the windfarm is generating, and that is determined by the wind.

[20] **Lord Elis-Thomas:** Janice, would you like to come in on this as well?

[21] **Ms McLaughlin:** I will let Wayne finish.

[22] **Mr Cranstone:** I have.

[23] **Ms McLaughlin:** I concur with everything that has been said, but I would just add that, from Scottish Power's perspective, our focus currently is on onshore wind developments. Onshore generation plays an important part in the energy mix, particularly in the short term. Developing and delivering onshore projects will really underpin confidence in bringing these technologies forward in future.

[24] **Mr Peacock:** One of the important things in looking across the different renewable technologies is their cost because, ultimately, it is the consumer who pays. I do not know whether people have seen graphs such as the one that I have here, which I can pass around. It is from the renewable energy road map or the Energy and Climate Change Committee and shows the relative costs of different technologies, and you can see that onshore generation is pretty much the cheapest available renewable technology. It is cheaper than offshore generation at the moment. With offshore generation, the hope is that the costs will come down as work on the supply chain progresses.

[25] Technologies such as marine generation are getting there, but they need a lot more investment before wave and tidal-type technologies can be deployed at scale. At the moment, we are trialling small installations of 2 MW or 3 MW. There is big potential in that technology, but we are not there yet. As you can see from the graphs, the relative cost of producing energy from those technologies is currently higher than from onshore wind generation.

[26] **David Rees:** You are all commercial organisations, and, therefore, the financial implications dominate your thinking. Is there any part of the financial aspect, in the form of subsidies or whatever, that would help you to continue with your development of renewables?

[27] **Mr Cranstone:** We have just had a consultation with the Department of Energy and Climate Change on the new renewable obligation banding levels. The suggestion is that they will come down in April 2013. For onshore wind generation, we used to have one ROC—for every megawatt hour, we had one renewables obligation certificate, and now the consultation suggests that it will be 0.9. While that is unwelcome in the sense that the costs of developing onshore wind generation will go up, it is a relatively minor reduction, so we do not see that having an impact on the projects in our pipeline at all. We are still planning on building and developing all the projects that we have in our pipeline. For us, the issue is not so much about the ROC level; it is more about competing for capital. We have a German parent company that wants to invest in renewables across Europe, and, when you are competing for capital to build a project in Wales, you have to be able to demonstrate clarity and consistency in delivering that through the planning process; that is the risk. In order to secure that capital and to build it in a timely fashion, we have to do a business plan for a five-year period. So, I am looking ahead five years and thinking about what project will come out that I need capital for in that five-year plan to build. Trying to do that with some certainty is quite difficult. When I am competing with capital for Poland, for example, I have to show in the investment case that we know, broadly, when the projects that are in the planning system may come out. That is probably more of a challenge on the capital side.

[28] **David Rees:** I think that all three companies have commented on the confidence issue. Some of my colleagues will discuss the issues on planning later, so I will leave them to that question.

[29] I will come back to the mix, again. You talk about gas as being one possibility, but we have security of supply as well, and a lot of our gas will not be imported. So, where do you see the future for gas in the short term and the longer term? You mentioned three stations, but I also want to mention Baglan, which is in my constituency, and I understand that that is

currently on hold.

[30] **Mr Peacock:** Gas does have a key role as a technology in the short to medium term. It is pretty much the only technology that you can just switch on and provide that back-up power. The more renewables and low-carbon mix that we have, the more that that becomes important. One thing that the UK Government is interested in is that you do not want too much gas because of the carbon implications and, as you say, you do not want to be too dependent on one fuel. That is what it is all about; it is about having this mix across technologies.

[31] With regard to the Abernedd station in Baglan, I can give you an update after this session, if that is helpful.

[32] **Lord Elis-Thomas:** With regard to any additional information that you want to supply to us, the committee is focused on finding the appropriate regime for renewables business in Wales to flourish. Let me make that quite clear—well, that is certainly where I am coming from.

[33] **Llyr Huws Gruffydd:** Hoffwn gyfeirio at sylw gan Janice ynglŷn â'r ffaith bod gwynt yn bwysig yn y tymor byr. A wnewch chi ymhelaethu ychydig ar y diffiniad o 'tymor byr'? Pam yr ydych yn gweld y bydd ei bwysigrwydd yn lleihau? Ai ystyriaethau masnachol fydd yn gyfrifol am hynny yn y pen draw?

Llyr Huws Gruffydd: I want to pick up on a comment made by Janice regarding the fact that wind is important in the short term. Will you expand a little on the definition of 'short term'? Why do you see that wind's importance will reduce over time? Will it be commercial considerations that drive that change in the end?

[34] **Ms McLaughlin:** At the moment, Scottish Power Renewables is involved in various renewables. As others on the panel have said, onshore wind is the most commercially developed and the most economically attractive. Our organisation is looking at other technologies in the longer term, and they will follow. We have projects in the rest of the UK. For example, in Scotland, we have consent for a tidal array project. In Wales, our focus is on onshore wind projects; we currently have three in the early development stages. We need to see those progressing and have some confidence that they will be developed, before we look at further technologies and developments.

[35] **Vaughan Gething:** I want to come back to some of the comments that you made on marine and tidal generation and, in particular, the evidence that you have given. The evidence refers quite clearly to the Welsh Government's targets for marine and tidal generation being missed, and some of you referred to them as being unrealistic. It would be interesting to know your view on why those targets are likely to be missed by such a large extent. I know that you spoke earlier about where technology is, but what about the extent to which each of the barriers have an impact in terms of saying that you are not going to reach the target. Also, where are the realistic opportunities at present to develop marine and tidal power in Wales? What sort of changes would you envisage that we would need to make from a policy point of view to try to help to maximise the marine and tidal opportunities?

[36] **Mr Peacock:** Shall I kick off on marine, wave and tidal energy? The UK Government has been modelling what it thinks is achievable across the whole of the UK, and the figures that it put in for 2020 are 300 MW from these technologies. We are not sure which will become the prevailing technology within the marine, wave and tidal set, because there is still quite a range. If you go to some of the major players in this area, you will see that the technologies look very different. Some have slug-type things in the water, and some are more like turbines, which suggests that there is still room on the development curve of these technologies. The UK Government thinks that they can provide about 300 MW by 2020,

while the Welsh target has been nearer 4 GW for 2020-25, a gigawatt being 1,000 MW. Some would say that that is good ambition, and others would say that we have a long way to go to get there. As I said, we have had some good opportunities to look at some of the trials in Scotland, but we are talking about 1 or 2 MW bits of kit going in at the moment.

[37] There are some fantastic opportunities, and I really think that the UK needs to pursue this, but we also need to treat technologies and targets according to the level of development at the time. At the moment, there is a lot of work to do on that. 'What does it need?' is your key question. It needs sustained financial support, which normally takes two forms for these kinds of technologies. You want some sort of upfront, capital grant support—the UK Government famously had one set of grants that no company was able to get hold of—and you also need more enduring support so that if electricity is produced, it gets some subsidy. The UK banding review has shown an increase in the amount of renewables obligation certificates that these technologies will get—it has gone from two to five, I believe. In terms of exact, detailed locations around Wales, I am not sure whether others can comment, but I can speak to some of our colleagues in Scotland, which is at the heart of our operation in this area, and come back to you on that.

[38] **Mr Cranstone:** I would echo that sentiment. In the past, it has been about developing the new technology with funding levels and support levels that were not reflective of the technical risk of developing some of these technologies. While there is huge potential for marine energy, most developers and utilities that are active in this area are doing small pilot test activities. We have one in the Skerries, near Anglesey that is between 5 and 10 MW, and we are working in collaboration with Marine Current Turbines. It does not have consent yet, and we are really involved because we want to understand some of the difficulties in developing the technology. It is more a case of doing a prototype and seeing how it works, and then thinking about how we can expand that, assuming that those tests are successful. It is still fledgling at this stage, much more so than some of the wind technologies, which have been around for a lot longer. Also, as Sam said, there are various types, including tidal stream, and, obviously, in the Severn there is talk about tidal range. So, there are a number of technologies in each category and nobody really knows which one to back yet. We are doing a bit more than playing with them, but it is a case of trying to understand some of the challenges. It will be some years before they are available on a commercial scale. We had a look at one up in Scotland that we did get consent for, and the economics of it, even with the subsidies in Scotland, meant that it was difficult to break even.

[39] **Mr Wells:** I endorse the point about fledgling technology. The problem that you have is that you are setting targets with technology that is very much at the prototype stage. I see a comparison with carbon capture and storage, which was being talked about two or three years ago; the industry was being pushed and told that this was the way to go, and asked why we were not doing it, but the reason was that no-one has that technology tried and tested on any scale yet. At Aberthaw, we are soon to be opening a demonstrator CCS plant, but that is for 3 MW. It is a very small plant, and it has to be proven to operate and work, and it takes a while to develop the confidence in that technology to move into a commercial scale.

10.00 a.m.

[40] With regard to what you suggested about things that could be done, perhaps through the Welsh Government, I would draw your attention to the fact that marine and tidal power generation clearly happen offshore and in a marine environment and, therefore, soon, the Welsh Government, through its marine consent unit, is going to be pushing for identifying potential areas to be designated as marine conservation zones under the Marine and Coastal Access Act 2009. Therefore, in making the assessment of potential sites—and sustainable development is the theme throughout the Marine and Coastal Access Act—it needs to ensure that all aspects of sustainable development are properly taken into account. When the Marine

and Coastal Access Act was a Bill going through Parliament, there was a great deal of emphasis on the environment and ecology sides of sustainable development. However, with regard to offshore renewables, be they wind, marine, wave or tidal power, the impact of marine conservation zones could be quite significant.

[41] You might say that I would say that wearing my wider Npower hat, but I would just make the point that those conservation zones could have an impact on more conventional generation because they could have an impact on electricity cabling and pipelines coming ashore and cooling water systems for coastal power stations and so on. The marine conservation zones are one way that the Welsh Government could assist with the development of marine and tidal power in Wales, but, if the zones become too restrictive, they could also hinder the development.

[42] **Vaughan Gething:** I want to pick up on two things you said. You talked about the Severn estuary, and there is huge potential there, but I am interested, because I know that the study got pulled, in what stage we are at with regard to the technology available to take advantage of the potential source. Would it be sensible to wait a further period of time? Are we in a position now to simply exploit what is already there from a technological point of view? Secondly, on the renewables obligation certificates, I know that we do not have control over those in Wales, but I am interested in what advantage you see that they have directly given to Scotland that we might be able to replicate here if we had direct control of them in Wales.

[43] **Mr Peacock:** With regard to the Severn barrage, there is obviously a range of techniques for getting energy from the Severn. The barrage itself is a relatively standard technology, I think. It is more the wider environmental issues associated with that that are the issue. I think that the technology for that type of system is already out there. With regard to Scotland, you make an interesting point, because Scotland has had control with regard to not giving multiple ROCs for wave and tidal power. As a result, you are seeing many of the key early-stage investments going on in Scotland. As others do, we have a number of projects around Pentland Firth, for example. In Scotland, the Crown estate has done a similar thing to what you may have heard that it has done for offshore wind power. It has found a few zones that, potentially, will work. A great deal of the investment has been attracted there partly because of that regime. It was only a week or so ago that the ROCs returned to 5 for England and Wales. We will have to see whether that works out as a balance. However, it has certainly been part of the reason, but not the whole reason. There are some excellent resources up there as well.

[44] **Mr Cranstone:** The only thing that I would add to that is that some of these investments are huge investments over multiple years—20 years or more. So, although the ROC banding that has just been released refers to the period between 2013 and 2017, beyond that, we will move to a situation of, effectively, a premium or feed-in tariff, with a contract difference. There is a great deal of uncertainty about what that means. That is not that long into the future. We will be building projects for 20 to 40 years, and there is uncertainty about what the remuneration of those assets will be in the longer term. If you can build the asset before 2013, you get your ROCs grandfathered at 1, but, because there is this change to the support mechanism and there is a great deal of detail missing in the consultation, it is really hard to understand what that means for an investment decision that will be around for 20, 30 or 40 years. So, we need to see a bit more detail on that to be comfortable with how it works. Through that consultation, we have been feeding in some of our fears; it is another uncertainty that has been introduced.

[45] **Vaughan Gething:** I would like to address one final point, if I may. You raised the issue of feed-in tariffs, and I would like to ask about a different aspect of feed-in tariffs, namely the announcement that was made recently about solar feed-in tariffs and the reduction

of those tariffs in a fairly short timescale. I am interested in your view on the impact that that will have not just on the industry—lots of jobs are potentially involved—but also on the supply side, in terms of the incentives for people to do this. What sort of impact do you see this having? We are still going through a consultation at the moment, but I am interested in your views, given that you are here today. I believe that your colleague might want to say something as well.

[46] **Mr Cranstone:** I will speak from a personal rather than company perspective here, because I have had some solar panels installed at home. Anyone who is considering making that kind of investment wants to know where they stand in terms of the remuneration that they will receive. I had mine installed in May, so I get the premium tariff. The plan is to reduce it by 50 per cent in December. I should imagine that there will be a bit of a rush to get schemes in by December; after that, it is just a question of economics. A lot of people will see that the price of solar panels has come down. So, if the support system is coming down but solar panels are still a good investment, they will have them installed. If it is the other way round, it may put people off, and you may see that the take-up level, which has been quite good recently, falls away.

[47] **Mr Peacock:** I would like to add to that. That was a classic kind of uncertainty in a policy area. Whatever the policy area is, if you change the playing field, it concerns investors and affects confidence. Even if the UK Government was to say in two years' time that it was going to increase these again, would the industry trust the Government as much? I suspect not. There is another question within that, and it comes down to all of these technologies and policies and links with your first question. Different technologies have different costs. As displayed on my nice graph, solar is one of the more expensive technologies. So, in terms of getting more bang for your buck in the field of renewables, you do not necessarily want to put all of your eggs in that basket. From a policy-making perspective, it was not a great example.

[48] **Ms McLaughlin:** I absolutely agree with what Sam has just said. We are not involved in the solar power market, but from a policy point of view, long-term certainty and stability are very important.

[49] **Mick Antoniw:** I understand that the tariff change creates uncertainty, and that there may be longer term uncertainty about where the tariff system is going. What impact might that uncertainty have on investment plans for renewable energy, particularly solar energy? I notice, for example, the references to the smart energy centre, which I suspect might relate to my constituency. Is this situation forcing you to relook at those sorts of plans in any way?

[50] **Mr Peacock:** Assuming that we get where we need to get, the smart energy centre itself is going to be doing a range of things. It is going to be a base for smart meter installers and a base for some of our contractors and other installers. It was not dependent on this tariff arrangement. If we can get it to work, we will be really happy as a company. It would be good for Wales. It would bring new jobs to the area and would act as a kind of export centre for our company, where we could train people up and use Wales as a starting point for that process before spreading it across the UK.

[51] In terms of the impact of tariffs on bigger and other renewable investments, the UK Government is doing its electricity market reform process, as I said earlier, and it is looking at the whole range of subsidies for different technologies: renewables, nuclear and so on. It is looking at ways of ensuring that we can get this flexible gas plant. If it was to start making these sorts of changes as soon as that regime kicks in, investor confidence would obviously falter. In an earlier evidence session, people mentioned European competition for investment. Something like €1 trillion needs to be invested in energy infrastructure across Europe before 2020. The UK will always be a core market for SSE, as a UK-based company. However, other international investors do not need to invest here; they can invest wherever they want.

Uncertainty will drive investment away in whatever shape or form it takes.

[52] **Mr Wells:** From the point of view of RWE, although it is an issue that goes well beyond your specific question, it is of key importance. We are based in Germany, but are looking all over Europe for potential investments. Wales is not competing against projects in England but against projects throughout Europe, wherever RWE has an interest. RWE wants to have confidence in timescales and certainty that it is going to make a return on a project. That may be stating the obvious, but I think that it can easily be overlooked.

[53] **Mr Cranstone:** There is a commitment from RWE Innogy, which is the renewables part of RWE, to invest in Wales and the UK. Gwynt y Môr is a €2 billion project, while the Atlantic Array, the 1.5 GW site that we are developing off south Wales, represents an investment of £4.5 billion. In total, we are looking at investment of £7 billion in Wales alone. There is, therefore, a commitment to invest. However, it is about certainty that, if we embark on those plans and invest money early on in developing them, we can do that in a consistent and timely way so that there are no surprises; that is what it is about.

[54] **Julie James:** I will follow up on the point about the way that the subsidies work and the certainty that is needed, which we would all concur with. I understand entirely the need for certainty in the capital markets and so on. Is there a regime in the European Union—one that does not go against state aid provisions—that is an optimum one for you? Would you prefer capital support, or is tariff support the best way forward? If we were starting with a clean sheet in Wales, given that we are in the European Union and are subject to the various arcane state aid provisions, which I know that you are all aware of, is there a regime that we would do well to look at? If you have the certainty that you describe, are you happy with the current regime?

[55] **Mr Peacock:** That is an interesting question. The simple answer is that different parts of different regimes work well. I would argue that for wind power and large-scale renewable projects, the existing renewables obligation certificate regime worked well in encouraging inward investment. As a company, we were concerned about changes to this regime. One of the limiting factors on investment around the UK has not necessarily been the subsidy regime; rather it has been planning issues. I will not go into the technicalities of transmission charges, but generation projects in more remote areas often pay a lot more to use the grid than those in other areas, such as nearer London. There have been other constraints. In our view, that subsidy regime was working well. Tinkering with it—or rather the wholesale change that has been made to it—is not particularly helpful. I do not have a good knowledge of some smaller scale microgeneration regimes around the world, but people talk about Denmark and Germany as being quite successful in that area, so they might be places to consider.

[56] **Mr Wells:** RWE npower is looking at major projects. The concept of some form of European subsidy is not something that we are used to. We are looking for certainty in the planning timescales and the policy areas to ensure that a 30, 40 or 50-year investment is going to be worth making. An example of that is the work that we are doing through our joint venture with E.ON UK and Horizon Nuclear Power to develop Wylfa, where it is clearly stated that no subsidy is going to be available for nuclear energy. We are, however, still firmly pursuing the developments at Wylfa.

10.15 a.m.

[57] **Mr Cranstone:** We also have experience across Europe of working in different regimes that are certificate based, such as the ROCs or the feed-in tariffs as in other countries in Europe. There are merits, upsides and downsides to both. Our position was that we would have preferred to keep the ROCs, but the coalition wanted to change that. We wanted to keep it because we understood it: it had been working, and any change brings uncertainty with it.

Now, we have to work through the detail of what the new regime will look like, and what electricity market reform is going to bring. At the moment, it is short on a lot of detail.

[58] **Lord Elis-Thomas:** It is now the turn of the patient people on this side of the table.

[59] **Russell George:** Thank you for your papers and for coming today. I will ask about transport and access issues. You talked about the close proximity of strategic search areas B, C and D, and the number of abnormal loads, especially going through similar areas, such as in mid Wales, and the impact that that will have on tourism, the general public, road users and so on. To what extent are developers working together to address the transport and access issues particularly associated with windfarm developments in mid Wales?

[60] **Mr Cranstone:** We have a project in mid Wales that has been in the planning system for some time—it is a legacy of section 36; it is not with the Infrastructure Planning Commission, as it is with the local authority for determination. Windfarm consent, transport and access issues and the grid upgrade are slowing down those applications. There are a lot of applications in the system, and not all of them will be consented, so, although it seems as if there is a huge amount of transport, some of them, naturally, will fall out of the system. The ones that are consented will be built over a certain amount of time, so it should be possible to phase the deliveries and the number of vehicles involved in the construction, to try to minimise the impact. That is the work that RenewableUK is doing on the strategic traffic-management plan, to try to map out how that process might look. It will, effectively, keep a diary of events of when certain projects will be in the construction phase, because it may be the case that they are not all in the construction phase together.

[61] It would be best to put a Grampian condition on some projects for dealing with transportation where there is no statutory consultee objection—effectively, you give consent for the windfarm but say that, before work can start on site with construction, the developers must demonstrate to all of the authorities that need to be involved, including the police authority and the highways agencies, how it is going to be done. We do that on all our developments. You have to agree a traffic-management plan, which determines the time of day that loads are going to be on the road in certain areas and identifies the route that the vehicles are going to use. So, there are ways of dealing with it. However, with access and with the grid, until you can get consent for a windfarm, it is hard to know what is going to come through the system and what you have to deal with. At the moment, there is a mass of applications and there is a theoretical number of deliveries, but we will not know what the reality is until we get some consents.

[62] **Russell George:** I was particularly interested in how developers are working together. I am interested in what considerations go into the traffic-management plan.

[63] **Mr Cranstone:** We have done it through our trade body, RenewableUK, so that a load of developers can get together to talk about this. We are competitors, but on certain issues we want to work together. Clearly, we have to work together on transport, the grid and various other things. So, it is sensible to do that through RenewableUK, and we are feeding into that.

[64] **Ms McLaughlin:** We are participating as an organisation with other developers on that strategic traffic-management plan. You asked about the detail of what goes into that plan. They are fairly detailed documents; a draft is available, which has been worked up to quite a degree, but there is still a wee bit of work to be done.

[65] **Russell George:** What considerations are there?

[66] **Ms McLaughlin:** One of the key points with regard to our experience in Wales, as

opposed to our experience elsewhere, is the level of detail that must be provided prior to determination. As Wayne said, most of the project is generally consented and that detail is dealt with by a prior-to-commencement condition.

[67] **Lord Elis-Thomas:** Are you saying that it is different in Scotland?

[68] **Ms McLaughlin:** Yes, and in England as well.

[69] **Russell George:** You mentioned prior consent now and in your paper. What do you mean by transport issues being,

[70] 'dealt with elsewhere via planning conditions post consent'?

[71] **Ms McLaughlin:** The traffic-management plan that is developed strategically for any windfarm is generally worked up post consent, but prior to construction. There will be a condition that we have to provide a detailed traffic-management plan to the local planning authority, which will have to be approved before we can begin any construction on-site. That is generally the order that it is done elsewhere: you get your consent and your conditions and you have to satisfy those conditions before you can start any work. The benefit of that approach is that you really want to have your contractors involved in developing that plan. At that point, because you will have been tendering, you will have selected your turbines, you will know who your suppliers and transport people are and they can get involved and commit to and sign onto that plan.

[72] **Russell George:** Finally, what actions can the Welsh Government take to assist with transport and access issues?

[73] **Ms McLaughlin:** One of the difficulties that we have experienced with our Llandinam windfarm, which has been in planning since 2008—that is about three years now—is that we have been wrestling with transport issues. The big problem for us is the very many transport stakeholders involved in the process when trying to get agreement and consensus on a route. We could do with some support to help broker a solution and to focus on solutions not problems. Based on our experience, there are solutions to the issues that are being raised. We really need to knuckle down and find a way of solving them, rather than raising more problems.

[74] **Lord Elis-Thomas:** The difficulty that I have had throughout this inquiry is that I know that there are roads in Scotland that are narrower than some roads in Wales. I just do not understand what this is about.

[75] **Ms McLauchlin:** The legitimate concern in Wales is that the strategic search areas concentrate windfarms in a space and there is the added complication of the grid situation, so that all of these projects are waiting for consent together. So, you have a concentration in space and time. However, based on our experience—we have 23 operating windfarms, one of which is the biggest windfarm in Europe—the issues are manageable, but we just need to get on, consent the projects and get the traffic-management solutions in place.

[76] **Russell George:** Is having strategic search areas a good thing or a bad thing? You are implying that you do not think that it is a good thing.

[77] **Ms McLaughlin:** It is neither a good nor a bad thing. Technical advice note 8 is good in the way that it directs large-scale development to certain areas, but it does have knock-on effects in terms of accumulation, and it is complicated by the fact that the grid situation just concentrates things.

[78] **Mr Cranstone:** I would say that it is a positive thing. It was quite a visionary thing when the Welsh Government took the decision to do TAN 8. It brought some problems with regard to transport and the grid with it, but, essentially, it was a clear signal to the industry that you had renewable energy targets, policy support and, as a result, we have all developed a lot of megawatts, which is a positive thing. The problem now is that we had strong leadership at the beginning, but we needed some more of that strong leadership in the delivery phase of it. That is the bit that we are all struggling with. It is easy to say that the transport and grid issues are significant ones that we have to resolve, but I feel that giving the industry that steer has been a very positive thing.

[79] **Mr Peacock:** If we were to land on a solution for the grid, people would look back on TAN 8 and say that it was quite successful; if we do not, then people will not think that. I think that it will be judged on how we find the solutions to the problems that are out there.

[80] **Mr Cranstone:** Also, the possibility of reviewing TAN 8 is being discussed. Going back to the point about investor confidence, that would be a bad thing from our perspective: we have invested time and money in sites in those areas that were set aside, and anything that undermines confidence in that would be a bad thing.

[81] **Mr Peacock:** Speaking for SSE, we won the tender for area D and we have been developing a windfarm. We have not exceeded any limits, or whatever you want to call them, at certain stages, yet we are faced by uncertainty with regard to the grid, in that we do not quite know how our project is going to proceed. We have played by the rules and are now not sure how it will work out.

[82] **William Powell:** As well as this issue, there are others that I want to develop later. However, on this issue, with regard to barriers to development, a consistent theme in your submissions was the importance of certainty in terms of the regime and in decision making. You also refer in your papers to the current moves to create a single environment body in Wales. On the one hand, your papers refer to concerns about the Environment Agency in England being decoupled from its Welsh counterpart. On the other hand, you have developed points about inconsistencies between the Countryside Council for Wales and the Environment Agency that you think might be addressed by a more coherent approach. I would be interested if you could perhaps expand on your thoughts in that regard.

[83] **Mr Wells:** There seemed to be a large number of topics in that question, but let us start with the proposed merger of the EA, CCW and the Forestry Commission. We have an open mind about that, despite expressing some concerns about that in the paper, because it might in some ways work better for some issues and in some areas than the current system. However, there are various issues on which it is fair to say that the EA and CCW have not always seen eye to eye—they are not natural bedfellows. The Forestry Commission is, obviously, poacher turned gamekeeper, because it has commercial interests in some of the areas and issues that this proposed new body would have to look at. It is not the first time that this has been said this morning, but the devil will be in the detail: how will it work, how will it be structured, what will its terms of reference be, how will matters be progressed, and what levels of consultation will be required and so on? We would need to see all of that before we could take a view on how it would work.

[84] A further observation on that specific point is to note that if CCW becomes part of the Environment Agency, where would the separate consultation role that it currently has be devolved or passed to, or would it not be passed on anywhere? That will certainly influence the efficacy of any new body.

[85] **Mr Cranstone:** I would say the same about the EA and CCW, if there were a slightly better marriage. The Forestry Commission may be a slightly different entity. When consulting

these organisations, the first thing that we need to know is what their remits are, so that it is clear that one entity will comment on this or that issue, and they are the people that we will have to get comfortable with our plans, and the other entity is responsible for another area. If they had more of an efficiency and administration type of role, I do not think we would have a problem having them as one body. However, it is about understanding exactly what that body's remit would be. That is the important thing.

10.30 a.m.

[86] **William Powell:** In cases where there are developments close to the English-Welsh border, I presume that efficient and coherent communications will be critical.

[87] **Mr Wells:** In some ways, we are open-minded, because what matters to us is a professional approach—a consistent and competent approach—with issues being addressed in a timely manner. There also needs to be a recognition—and this may be inherent in a professional approach—that appropriate weight must be given to the views of different bodies at the appropriate time. That is all part of the mix and the detail I was talking about.

[88] **Rebecca Evans:** We have heard in evidence about the different ways that renewable companies are incentivising or offering community benefits in different areas of Europe. I am aware of the time, so I will ask just one question, but in three parts.

[89] **Lord Elis-Thomas:** I think that we might prefer three questions.

[90] **Rebecca Evans:** Okay, that is fine. What community benefits are developers offering in Wales at the moment?

[91] **Mr Cranstone:** The answer is that there is a range. From our onshore portfolio, we currently contribute about £0.5 million a year, which is index-linked, to local communities. That will grow to about £1.8 million as the onshore pipeline develops. However, if you take the example of something like Gwynt y Môr, over the lifetime of that project, in the region of £20 million will go to local benefit. One of the issues that we are grappling with at the moment is about getting local populations to buy into the idea of renewables and hosting renewables, whether that is in strategic search areas or the grid corridors. There is a lot more that can be done on community benefit. In the UK, we have worked with RenewableUK to come up with a community benefit protocol, which is something that we subscribe to. It sets a contribution at a minimum amount per megawatt, but it is just a minimum, and developers are offering different amounts. In terms of how it is administered, effectively, we pay money into a pot once a site is operational, and then the local community decides how that is spent. It ranges from a new roof on the village hall to broadband in a remote village or whatever. We deliberately stay out of that. We put the money in and it is up to the community to decide how it is spent.

[92] I think that the evidence you had from RenewableUK some time ago talked about us developing a Welsh version of that protocol, and that could have anything in it that we agree would be a sensible thing to include, perhaps including incentivising people to host some of the infrastructure as well as some of the windfarms. We are quite happy to work closely with you on that and to support that. If that can be sold publicly, so that the Welsh Government comes out and endorses that policy, that would be very sensible and helpful.

[93] **Rebecca Evans:** My second question is: what would you like to see in the protocol? Do you have any further detail on what you would like to see or what you think is particularly useful in the UK protocol that should stay in a Welsh one?

[94] **Mr Cranstone:** I would say that it should mirror the English one quite closely

because it works. The reason that virtually all the developers have signed up to the protocol is because we are doing it anyway. We probably do not talk about it as much as we would like to, and that is partly because it is quite a sensitive subject to talk about at a certain time. For example, when you are submitting an application, you tend not to talk about it because you do not want to be seen to be influencing things in a negative way. There are obviously compliance issues to do with offering financial incentives before you have consent. With Chris Huhne endorsing it publicly, it helps us by allowing us to talk about that protocol at the planning stage in the UK. So, we can say that if this windfarm is built, this is the sort of sum of money you will get and these are the sorts of initiatives that people are using the money to support. It allows us to address that much earlier in the public consultation than perhaps we do now.

[95] **Mr Peacock:** We also have a community benefits package. I will not go into the microdetail, but for the Nant y Moch windfarm, depending on the eventual size of the project, you are looking at £8 million to £10 million going towards the community over the life of the project. We keep our policy on community benefit under review. We always have a fair and even-handed approach. We realise that the policy that we set up three years ago may not necessarily be the one that we want to use in three or four years' time. We did not sign up to the protocol, because we did far more than that. Community benefit is a difficult area. It is designed to overcome some of the effects of a project: if a community is being affected you want to provide some benefit for it. We felt that it should be part of the developer-community relationship rather than there being a proscribed protocol, which would make it become part of the process rather than part of that relationship, if that makes sense. We felt that goodwill might be removed if it was part of a process, and that was why we did not sign up to it. However, our package is far above what is in the protocol.

[96] **Rebecca Evans:** Do you have any specific examples, either in Wales or beyond, of things that are working particularly well and that we should look at further?

[97] **Mr Peacock:** One thing that has always gone down well as part of our packages in Scotland has been having an energy efficiency link to the project. In building an energy project, if we can minimise the amount of energy used, there is not as much need for generation. So, we normally have an up-front payment of £3,000 per megawatt for the energy efficiency fund. A lot of the other money used throughout the project is also linked in with energy efficiency, as can be seen from Wayne's example. That kind of link between the two has gone down well in the communities in which we work.

[98] **Mr Wells:** I would like to add one point, based on a wider energy perspective. The specific question was on community benefits in relation to renewables, but there are significant community benefits from larger power stations. We calculate that the impact of Aberthaw on the local community is about £75 million, in the business it puts its way and the use of local coal. It is also about the softer things, such as support for local universities and sponsorship of an apprenticeship course at Bridgend college. None of those benefits would materialise if the planning system was not working in the first place and the investment was not being made initially.

[99] **Mr Peacock:** I would like to add one final point: there are jobs, as well. That is not necessarily the part of community benefit on which you wanted to focus. However, with our project, we will be looking at 100 local construction jobs, based on our estimates, and a similar amount of decomissioning and operational jobs, encompassing a variety of skills. There are other benefits as well, such as better tracks, upgrades to visitor centres and so forth. So, we should not just think about community benefit in terms of a community benefit fund.

[100] **Ms McLaughlin:** I will add that at Scottish Power Renewables we have 23 operating windfarms and a vast number of community benefit arrangements with a range of different

models. I would be very happy to provide you with details of those, as there is obviously no time to go into them today.

[101] **Rebecca Evans:** That would be great.

[102] **Lord Elis-Thomas:** That would be very helpful. There is also another matter that I should have picked up at the time, which is the development of a draft on transport. When that is at a stage at which you think that it might be worth sharing with us, we would be very interested in that as well, because it would address some of the issues that we have been raising. I am conscious of the time, but we were a little late starting, so I will extend this session until 10.45 a.m., and we will then have a very short break while you reorganise your dramatis personae—I believe that is the Greek expression—at the table. I will now bring in Llyr.

[103] **Llyr Huws Gruffydd:** Diolch, Gadeirydd, am y cyfle i ofyn un neu ddau o gwestiynau ar ddiwedd y cyfarfod.

Llyr Huws Gruffydd: Thank you, Chair, for the opportunity to ask one or two questions at the end of the meeting.

[104] Hoffwn fynd i'r afael â rhai o'r sylwadau a wnaed eisoes ynghylch y system gynllunio a chaniatáu sy'n bodoli yng Nghymru. Cyfeiriasoch yn fynych yn y papurau a gyflwynwyd inni at natur araf, cymhleth a darniog y systemau sydd gennym yng Nghymru. Ni wyddwn os allwch chi gyfeirio at unrhyw enghreifftiau penodol o gynlluniau arfaethedig sydd wedi cael eu diystyru oherwydd gofidiau ynglŷn â'r broses sydd gennym yng Nghymru. Eich dewis chi fydd ateb hynny ai peidio. Yr oeddwn am gyfeirio yn benodol at yr hyn a nododd RWE Npower yn ei bapur, sef bod prosiectau fel arfer yn cymryd oddeutu tair blynedd i fynd drwy'r system gynllunio. Yr wyf yn ymwybodol o ymchwil sy'n awgrymu bod Prydain ymhlith y gwladwriaethau cyflymaf o ran prosesu ceisiadau cynllunio. Beth yw eich ymateb i hynny?

I would like to address some of the comments that were made previously about the planning and consents system that we have in Wales. You referred repeatedly in the papers submitted to us to the slow, complex and fragmented nature of the systems that we have in Wales. I do not know whether you can direct us to any specific examples of proposed schemes that have been disregarded because of concerns about the process that we have in Wales. You can choose to respond to that or not. I want to refer specifically to what RWE Npower said in its paper, which was that projects usually take around three years to go through the planning system. I am aware of research that suggests that Britain is one of the swiftest states when it comes to processing planning applications. What is your response to that?

[105] **Mr Cranstone:** I am aware of that research, which came as a bit of a surprise. We have some examples of projects that are in the system in Wales. We have projects below 50 MW—decisions on which are taken in Wales—and above 50 MW. I will start with those below 50 MW. We have a project that was submitted into the planning system in 2008. It is in strategic search area F and it is somewhat unusual because it goes across two local authority boundaries—those of Bridgend and Rhondda Cynon Taf. The half of the windfarm that is in the Bridgend area has had consent. It managed to provide consent for its side a few years before RCT has been able to do so. It had some difficult challenges as there is a neighbouring windfarm and a shared access track, and the situation is quite complicated. Although we got the consent—or at least the approval for the consent—in 2009, it was 2011 before we got the section 106 detailing the access track difficulties. The half in the RCT area had the officers' recommendation for approval, but when it went to committee it was refused. It has now gone to a public inquiry. It is in a strategic search area and I do not think that there are any statutory consultee objections, yet it is still going to public inquiry, and there is no date for when it might be decided.

[106] We have another project below 50 MW that went into the planning system in 2008. After a year, we took it to public inquiry because of non-determination: it had not gone to committee and they had not made a decision on it over a year. It went to public inquiry and the inspector's report went to the Welsh Government for the decision and it was refused. We challenged the decision on the basis that we did not think that the inspector's conclusions had followed logic in terms of the evidence. We won that appeal, but it is being challenged by the Welsh Government. So its status is one of legal challenge, and we do not have the date for the hearing. Those are examples of projects that meet policy guidance but are not getting approved at a local or Welsh Government level. That is inconsistent with the policy, which states where the areas are and that, if you can meet all the environmental concerns and have no statutory consultee objections, you would expect projects within them to be approved.

[107] **Llyr Huws Gruffydd:** Tybiaf fod rhesymau dilys dros wrthwynebiad yr awdurdodau lleol a Llywodraeth Cymru—nad ydynt yma i roi eu hochr, rhaid cydnabod hynny—ond bydd gwrthdaro, fel y nodwyd mewn tystiolaeth gan bobl eraill i'r pwyllgor hwn, rhwng sicrhau bod y system yn gweithredu yn brydlon a sicrhau bod gofidiau lleol yn cael yr ystyriaeth iawn, fydd hefyd yn sicrhau bod trigolion lleol yn prynu mewn i ddatblygiadau ac yn teimlo bod y datrysiad sy'n cael ei gynnig iddynt yn lleol yn addas ar eu cyfer. A oes modd cadw'r ddwy ochr yn hapus? Beth fyddech yn awgrymu er mwyn creu system fwy effeithiol sydd hefyd yn diwallu gofidiau ac ystyriaethau digon dilys y trigolion lleol?

Llyr Huws Gruffydd: I assume that the local government and the Welsh Government have valid reasons for their opposition—they are not here to give their side of the argument, we must acknowledge that—but there will be conflict, as noted in evidence received from others to this committee, between trying to ensure that the system operates swiftly and ensuring that local concerns are given due consideration, which also ensures that local residents buy into developments and feel that the solutions proposed locally are appropriate for them. Is there a means of keeping both sides happy? What would you suggest to create a more effective system that also meets the valid concerns and issues of local people?

10.45 p.m.

[108] **Mr Wells:** I do not think that anyone sitting here would argue that planning applications should not be considered thoroughly or that there is not a need for all views to be taken into account. To extrapolate that into the new major infrastructure planning regime, there is a heavy emphasis in that regime on pre-application consultation, which is intended to try to find a meeting of minds on as many issues as possible, so that the few issues that are of concern can be examined properly and followed through, so that you do not waste time on issues that people agree on.

[109] That is a process in which the Welsh Government is not directly involved, and you have had plenty of evidence on that, particularly from the Infrastructure Planning Commission. Having said that, the Welsh Government has a significant involvement in major infrastructure projects in Wales. It has a memorandum of understanding with the IPC and the Welsh commissioners, but I am thinking more in terms of associated development. It is not quite a one-stop shop in England, but, because the concept of a one-stop shop in making a planning application includes associated development, it therefore works better as a one-stop shop. Within Wales, the only associated development is specifically in relation to underground gas pipes, or something along those lines—you are welcome to correct me. That means that there are many aspects of a major project that the Welsh Government will be able to become involved with, and where Welsh policy and local input will become quite valuable.

[110] At Wylfa, for example, we have road transport issues and there will be a marine offloading facility there. There is the construction or extension of dwellings, some of which will not be for workers' accommodation but other dwellings. There will be marine consents

licenses required, which come through the marine consents unit of the Welsh Government. So, there are plenty of opportunities there for local consultation and for local views to be taken into account. We see that as very much part of the process. At the risk of sounding as if we are blowing our own trumpet, there will always be a balance with regard to where we appear to have taken views into account and do not, and that, basically, depends on whether someone likes the exact outcome. However, as an industry, we have always, generally speaking, been pretty sensitive to the need to try to get the community on board, be that for a renewables project or for other major infrastructure projects.

[111] Therefore, I would suggest that, in the planning world, we accept fully the need for a pre-application consultation and the need to involve parties in order to try to identify what may or may not work, but, ultimately, there will be some conflict points; there will be issues where a decision needs to be made that will be unpopular with one side or the other, and we accept that as part of the process.

[112] **Lord Elis-Thomas:** Thank you very much; we will close it there and make our swap of witnesses. It was very clear and detailed evidence, which will certainly help us significantly in the development of our report.

Gohiriwyd y cyfarfod rhwng 10.48 a.m. a 10.55 a.m.
The meeting adjourned between 10.48 a.m. a 10.55 a.m.

Ymchwiliad i bolisi ynni a chynllunio yng Nghymru—Tystiolaeth gan gwmnïau ynni a'r Grid Cenedlaethol: Ystyried materion yn ymwneud â rhwydwaith a'r grid
Inquiry into energy policy and planning in Wales—Evidence from energy companies and National Grid: Consideration of network and grid issues

[113] **Lord Elis-Thomas:** I welcome some change of colleagues and some continuity, which always seems like a good idea. Colin and Steve, will you introduce yourselves and explain your responsibilities? Then I will call on Russell, our grid man from mid Wales.

[114] **Mr Taylor:** Good morning, my name is Colin Taylor. I am representing SP Manweb, which is a licensed distribution network operator in mid and north Wales. We operate a network from 230 volts up to 132,000 volts. SP Manweb is part of the Scottish Power energy network group, which, in turn, is part of the Iberdrola group. Also, within Scottish Power network business, in addition to the Merseyside and north Wales distribution licence, we also have the distribution licence and the transmission licence in central and southern Scotland. My role is the head of network design for all of these licences. A significant issue for us, given the areas that we operate in, is the connection of renewables. There is a lot of activity with regard to generation seeking to connect, but we also have connected quite a lot so far, with about 500 MW of renewables on our network in Wales, and about 2,500 MW of our network in Scotland.

[115] **Lord Elis-Thomas:** Thank you. You have supplied me very regularly with a few outages. [*Laughter.*]

[116] **Mr Knight-Gregson:** Good morning, everyone. My name is Steve Knight-Gregson, and I represent National Grid plc. We are at the centre of so many of the energy challenges that we face as a nation. In electricity transmission terms, we are the system operator for Great Britain, and we own and manage the network in England and Wales. In gas transmission terms, we own and operate the high-pressure gas network across Great Britain. We own and operate four of the gas distribution businesses, but not in Wales. We are developing carbon capture and storage network operations, and we also have interconnector

businesses. My specialist area is to do with planning and consenting. I am a chartered town planner—that is my background within National Grid on gas and electricity projects.

[117] **Russell George:** As the Chairman implied, I have a little interest in the mid-Wales connection project. I want to read part of John Griffiths's letter to planning officers and organisations, including yours, in July this year, as a backdrop to my questions. He said:

[118] 'provided development is limited to the maximum capacities above, we do not believe there is a need for the large, visually intrusive, high voltage grid network infrastructure and associated sub station of the kind proposed within Mid Wales'.

[119] It would be useful if you could update on the current developments with regard to the mid-Wales connection project and, perhaps, follow on from John Griffiths's statement in the summer.

[120] **Mr Knight-Gregson:** The contractual position is that National Grid is currently contracted to connect just over 840 MW, which you will appreciate is higher than the figures referred to in the letter. It fluctuates a little—it has been higher, up to 874 MW—and it depends on the particular proposals of the individual windfarm, many of which are connecting directly to Scottish Power's electricity networks.

[121] **Mr Taylor:** The total activity goes up and down. In mid Wales, the total activity, in terms of what we have connected already and the additional generation—including the developer that is seeking to connect directly to National Grid's network—is over 1 GW, which is over 1,000 MW. So, those are the figures that we are dealing with and, as network licensees, we have a contracted position and are obliged to progress proposals that can accommodate those levels of megawatts.

11.00 a.m.

[122] **Russell George:** Could you talk us through the current timetable for the next five years plus, from your point of view, including the announcement of the preferred location of the substation?

[123] **Mr Knight-Gregson:** We are working very closely with our connection customers. We have had public consultation events through the course of this year, and 54 exhibitions. There was a high response rate to that, with over 6,500 representations. We are currently working through those, which is an important principle of the Planning Act 2008 regime, which, as was explained in the earlier session, puts the emphasis on pre-application consultation. We are listening and taking stock of consultation feedback and working very closely with our connection customers in the identification of what may be preferred options. We are working through that and looking to conclude that during this winter, with a view to letting everybody know our emerging thoughts.

[124] **Russell George:** Thinking especially of the last six months, what involvement has the Welsh Government had in the project in Wales, from your point of view?

[125] **Mr Knight-Gregson:** The Welsh Government is an important consultee and has an important role to play through the Planning Act 2008 regime. There are a number of responsibilities that are devolved to Wales, and particular areas of responsibility that, again, have been talked about in the previous session. There are sizeable opportunities for engagement and involvement in nationally significant infrastructure projects, notwithstanding the fact that the decision rests with the Secretary of State.

[126] **Mr Taylor:** In terms of discussions with the Welsh Government, and Welsh

Government officials, we have very regular meetings with them on all energy matters, and those discussions have included the mid-Wales proposals. Going back over a number of years, we have had regular discussions on what might be required, and what the solution could potentially look like.

[127] **Russell George:** What is your reaction to John Griffiths's letter of July that states that there is no need for the project as proposed, or for the substation? What is your reaction to that?

[128] **Mr Knight-Gregson:** We are working closely with Welsh Government Ministers, the Department of Energy and Climate Change, and our customers to understand the implications of that. We have a contractual position and an obligation deriving from that to seek to connect those customers. If that situation were to change, then the options would rightly need to be reviewed.

[129] **Russell George:** With regard to the mid-Wales connection project, are you clear on the Welsh Government's position?

[130] **Mr Knight-Gregson:** Yes, we are clear, but we are in discussions with Ministers about the issues raised in the correspondence.

[131] **Russell George:** During the summer, there was a meeting of Powys County Council, which will of course be the decision maker about the substation, unless it is called in by the Welsh Government, and, at that meeting, we were expecting about 2,000 members of the public to turn up, which is what happened. Some very clear views were then expressed by Powys County Council. What are the implications of what was decided in that meeting with regard to the mid-Wales connection project, for you and the substation? Obviously, Powys County Council will be the decision maker unless it is called in.

[132] **Mr Knight-Gregson:** Are you referring to TAN 8?

[133] **Russell George:** The council expressed some strong views in general terms about the whole mid-Wales connection project, calling for a review of TAN 8 and a moratorium on windfarm development until that review had taken place. Obviously, the council is the decision maker regarding the substation, and that needs to go ahead for the connection project and further windfarm development to continue.

[134] **Mr Knight-Gregson:** The question about the review of TAN 8 is one for the Welsh Government to comment on rather than National Grid. We recognise that Powys County Council has made that resolution, and we acknowledge the situation that Powys finds itself in with devolution. As an authority, it has a technical role and an opportunity for engagement through the Planning Act 2008 regime. There are opportunities to engage in pre-application consultation discussions on options. We recognise that there is a political role for the authority as well. Reconciling the technical role with a political role can be a difficult balance to strike for authorities. We are sensitive to that, and we want to work collaboratively with all of the local authorities across our major projects. We encourage all of them to engage and participate in the Planning Act 2008 regime to the greatest extent that they can. We place great importance on the pre-application consultation elements of the Planning Act 2008 regime. As said in the earlier session, great importance is attached to getting as many issues resolved and ironed out as possible, and getting genuine opportunities for communities to shape and influence a project, so that the right proposal is submitted in any consent applications.

[135] **Mr Taylor:** In terms of engagement with all of the stakeholders, as Steve and others have said, we seek to engage closely to understand where there are differences and to resolve

those differences where we can. If we cannot, we can at least highlight them to ensure that all of the relevant stakeholders understand what the issues are, but that they also understand our obligations as network licensees. We are following the megawatts; if you get above a certain level of megawatts, it requires a certain capacity of transmission and distribution equipment, which will require new substations. On planning and developing transmission and distribution infrastructure, it is good to have more certainty about where the megawatts are going to be and what the numbers are. That allows you to build a stronger need case and engage in more meaningful consultation with local people.

[136] **Russell George:** Going back to the timetable, when do you anticipate that the final project will be completed? From the latest information, I understood that it was 2015, but there was some talk of an extension to that date. A number of different figures have been quoted for undergrounding. Are you able to give us a definitive figure for how much more it would cost? I have heard that it would cost four times as much or ten times as much; can you give us a definitive figure? If not, can you explain why you are not able to give an answer at the moment?

[137] **Mr Knight-Gregson:** We are currently working towards the submission of any consent applications—whichever form the proposal takes—in 2013. We are looking to complete construction by 2015. When people apply to connect to the network, they may seek a particular connection date, and we will offer a connection date that may or may not be the same. There is a requirement on us to endeavour to secure consent to achieve those end dates. However, the dates in the connection agreements have the caveat that the proposals are subject to consents. So, from pre-Planning Act to post-Planning Act, that requirement still stands. Clearly, proposals have to be taken through pre-application consultation, tests of public acceptability and environmental acceptability through the normal planning processes. I do not know whether Colin would like to add to that.

[138] **Mr Taylor:** There is a contractual framework between SP Manweb, the National Grid and the developers seeking to connect to our system. The framework is similar to what Steve has outlined, and the dates align with that. So, 2015 is the date that we are trying to drive to.

[139] **Mr Cranstone:** I will add a developer's perspective to this. We are a customer of connections, so it is important for us that, when we are developing a site, we know that we can export the power. At the earliest opportunity, we will go to the grid companies and ask if they can offer us a connection. Usually, we indicate the date on which we would like the connections, subject to us getting consent in what we consider to be a reasonable time.

[140] One problem that we have, particularly in mid Wales, arises due to the cost of upgrading the infrastructure. When we accept a grid connection offer—we have a number of projects on which we have contracted for the grid connection—we have to pay for that connection in order for some of the design and consenting work to start, and we have liability to cover some of the cost of the eventual upgrade. For example, with one project, we have liability of about £7 million, but we do not know when, or if, we are going to get the consent. If we do not get consent for the windfarm and we terminate the agreement, we lose £7 million. The problem is that we have to commit to the grid connection; if we do not, these guys cannot design the system, because they do not know how much megawatt they are designing it for. So, it is a bit of a chicken and egg situation: developers are saying that they want a connection and are thinking about what sort of connection they need, which depends on how many people are connecting. We have a situation in which we have a contract, we do not know the date for connection, we do not know where the substation is going to be located—if that is significantly further away than we hope, there is a cost implication—and we have liability on our books for a connection that we may not enter into, and have to terminate, if we do not get consent. That is why the planning process, and certainty around

consent, is important for us. As a company, we are prepared to make some of those commitments and to risk some of the money in order to start moving through the process of designing the grid and understanding what needs to be done, but it is not a comfortable situation for us, as a customer, to be in.

[141] **Russell George**: Undergrounding was the—[*Inaudible*.]

[142] **Mr Knight-Gregson:** You will be aware, possibly, that there is an important piece of work being done independently, precipitated by Sir Michael Pitt, chair of the Infrastructure Planning Commission, on the cost of high-voltage electricity transmission and the comparative cost of undergrounding and overhead lines. That work is being done independently through the Institution of Engineering and Technology. A further set of consultants is doing further work—Parsons Brinckerhoff and Cable Contracting International were appointed during the course of this year to do some work on that. We are led to believe that that will be concluding towards the end of the year. National Grid has provided information into that process along with other stakeholders who have been invited to provide information. We welcome the outcome from that as much as any. There can be some misunderstandings about cost, particularly when ratios are quoted. People will often say that we have quoted about 10 times the cost of a comparable overhead line. It is important, as the national policy statement on electricity networks acknowledges, that the cost of undergrounding on individual projects will vary according to a number of factors that, in large measure, will relate to the rating, the power flows and the voltage. The number of underground cables that you need to match the required rating in a particular set of circumstances may be influenced by the nature of the underground cable installation. If there is a need for it to be in deep tunnel, rather than direct buried, that can increase the civil engineering costs.

11.15 a.m.

[143] So, in comparing costs of undergrounding, at high voltage, it is important to be comparing apples with apples. In the context of the mid Wales project, our strategic options report sets out the comparative range of costs. Certainly, from our consultation feedback, there has been some misunderstanding or some misrepresentation of some of the information in the report. If you look at the direct comparative costs of AC buried cable and overhead line, you will see that the cost of buried cable is about 6.5 times that of overhead line.

[144] If you take the cost of the project as a whole, including the substation works and the ancillary things that go with it, the ratio changes to about three times the cost. So, we can understand why people may sometimes get confused or ask why it is being quoted in a particular news article that the cost is 10 times that. Ten times the cost is, in broad terms—if you are looking at 400kV—the comparative cost of what we call ‘two core per phase’, which is two underground cables for each electrical phase. When you look at a standard double circuit line, that means 12 underground cables compared with six sets of wires on an overhead line. I do not want to get too technical, because I am not an engineer. Colin, do you want to add anything?

[145] **Mr Taylor:** Steve has talked about undergrounding at the higher voltage end of the National Grid’s responsibility—275,000V to 400,000V. In the case of SP Manweb, it is about the various individual connections to the generators. There are some different issues that apply there. When talking about undergrounding, cost is always raised, but cost is just one of a number of issues of undergrounding. The terrain—whether there are roads and so on—is an issue. If the terrain is rocky and the ground goes up and down, it is very difficult to construct an underground cable circuit. You would typically have to build a haul road to get the machinery in. Even if you can do that, there are a certain number of earthing issues because of the rock in north Wales that would give us some concerns about laying significant lengths of

cable. There is the environmental impact as well. There are also issues to do with the access for building it and for fixing it. If you get a fault in these higher voltage cables, you need a big joint bay, and you need joints to be carried out under sterile conditions. If that is at the top of a hill in the middle of nowhere, it gets quite difficult. So, cost is an important consideration, but it is not the only consideration.

[146] With regard to the specific mid Wales project, from the National Grid's perspective, you might be talking about undergrounding one route. For SP Manweb, it will be a number of routes for lower capacity. We will have a number of 132,000V circuits, so there are different issues for the grid and for SP Manweb.

[147] **Vaughan Gething:** I want to go back to some of the points raised in the earlier evidence and the point that Russell raised in particular about Powys council's decision. I am interested in the points about leadership and certainty, because I think that they overlap a number of different areas. I think that the Powys council resolution in full council raises some difficult points for us all, because the council appears to predetermine its view on something that has not come before the planning function. I know that Russell said that there would be a decision—

[148] **Lord Elis-Thomas:** How far are you going with this? The Welsh Local Government Association will be coming before the committee.

[149] **Vaughan Gething:** I am going back to whether that decision has helped or hindered your ability to engage with the council on issues with this particular project. It is also about leadership and engagement at a local authority level, about how decisions are made, and about the engagement with either elected members or officers on how you can deliver products and understand the planning conditions and issues in each local authority area where you might want to develop. It is not just a Powys issue; it is about the capacity and ability of local authorities to deal with associated development issues. We are consistently being told that there is a huge log jam and that, often, it is associated development issues holding things up.

[150] **Mr Taylor:** It has not hindered our relationship. We have a positive and constructive relationship with all local authorities. It has been highlighted by a number of others who have given evidence that resources are an issue for all local authorities. In the time that it takes to get consent for megawatts—going back to my previous point—it is difficult for us to build a strong needs case and to engage with people.

[151] **Mr Knight-Gregson:** Similarly, we have a very positive experience of engagement with Powys, and with other authorities, across all of our major projects. As a national organisation, we have been quite focused on how local authorities might be struggling to manage with the opportunities—some might call them opportunities rather than obligations—placed on them under the Planning Act, in which clear roles are identified for local authorities regarding pre-application consultation and engagement to shape and influence projects. Around the Planning Act, we have developed a consistent approach for entering into planning performance agreements. There are structured packages of work and activities aligned with local authority roles as a result of the new Planning Act regime. As the proponent, we can provide a consistent, fair and appropriate level of support to help them with that. They have a technical role—or opportunity—to engage in pre-application consultation, a political role and a decision-making role in respect of the substation. We recognise that it is sometimes difficult for them to see the separation between those different roles, but it would be useful if we could all encourage them to do that.

[152] **Mr Wells:** I had suspected that I might get through this network section without saying anything, but the issue of resources did not come up in the last session. It is an

important issue, in terms of being able to deliver in a professional and timely manner and so on. It bites at all levels through the planning system, particularly at a local authority level. Developers, as well as local authorities, are trying to grapple with the new regime. That is also happening at statutory consultee level, where they do not necessarily have the resources. The emphasis on their role in the new planning system, and their role in pre-application consultation in particular, is something that they have not adjusted to, and for which they do not have the resources. I would not call it a specifically Welsh issue; it is an issue for planning, full stop. I recognise what Steve said about planning performance agreements becoming the norm, although they are not the norm yet. I have mixed views on the suitability or appropriateness of planning performance agreements to cover those issues up. At the moment, there is clearly scope for entry into planning performance agreements with local authorities. However, there is a real danger about where that stops. So, resources are an integral part of the consideration of this topic.

[153] **Mick Antoniw:** I just want to develop these themes a little. Three strong themes come through in your written and oral evidence—the first is too many conflicting interests, the second is the issue of resources and the third is the strength of Government leadership. On resources, are we talking about not enough people doing the work and engaging, or are we talking about people who just do not have the skills? What I am really getting at is this: to what extent are the resources that are there fit-for-purpose and capable of delivering it? Alternatively, are we saying that we do not have those skills? Is it a skill-based issue rather than an issue of the number of bums on seats?

[154] **Mr Wells:** It is probably a mix. It requires an analysis of what is being done and what is lacking and what is not lacking. It is an evolving situation as the new planning process takes shape. I suspect that it is a combination of numbers and skills. The IPC has been holding its outreach programmes with local authorities and statutory bodies, with a view to trying to educate them on the implications of the Planning Act 2008 for an application in their area. So, those programmes are being targeted, once the IPC is notified of an application and it starts to recognise that it may need to do some education. That is a difficult question to answer, but, as I said, I suspect that it is a mix of both.

[155] **Mr Knight-Gregson:** I concur with that; it is a mix of the capacity to do it and skills. As the National Grid is a proponent of long linear infrastructure, we are a bit different to single-point site developments, given that, for some of our projects, we have to deal with quite a number of local planning authorities. What are emerging on those, through dialogue and discussion on these issues, are a strong will and a degree of collaboration to get, say, the most effective landscape input from a range of local authorities. They need to work together collaboratively to identify the best and right specialist to lead on the consultation for a particular proposal, who can then represent the collective views of a number of authorities. So, we are very much encouraging that as an efficient and effective means of ensuring really good-quality engagement in pre-application discussions by the local authorities and all bodies concerned.

[156] **William Powell:** Last week, the Minister for Business, Enterprise, Technology and Science, Mrs Edwina Hart, spoke strongly in favour of a regional approach to planning. That was not really an issue that we raised with John Griffiths when he came to one of our sessions several weeks ago. Could you comment on that proposal, given that you touched on the issues of collaboration in your earlier comments? Secondly, I want to develop the cabling issue with you, which has already been mentioned by my colleague. What would be the impact of the lower cost and lower capacity cable that has been proposed by Friends of the Earth if it were to be adopted in the context of the connection project?

[157] **Mr Knight-Gregson:** I am happy to start on regional planning. The simple message from the National Grid's perspective is that, at every level—European, national, local and

regional—both energy policy and planning policy need to be consistent, aligned, coherent and clear to deliver the framework needed for the energy challenges that we face. That is my overarching message on that.

[158] **Lord Elis-Thomas:** That is an important message. We are grateful to listen to it and we will consider it carefully.

[159] **William Powell:** The issue regarding the Friends of the Earth proposal—

11.30 a.m.

[160] **Mr Wells:** Sorry, but just on the regional approach, I am afraid that I am not aware of the details of what Edwina Hart said last week. I am speculating slightly, and maybe not representing the company's formal position, because we have never discussed it, but I can see that there are certainly advantages in collaboration. Although projects will not be brought forward in a nice sequence, it could be of benefit to develop teams where local authorities share some support, and for that support to transfer between local authorities to assist them as applications come before them. That is a very sketchy high-level view, and there will be a lot of devil in the detail to come. However, there may be some benefit in having that sort of team, which is familiar with new regimes and processes, that can actually work as a consultancy at local authority level. I am taking a flyer, but that may well be a way of trying to move this forward.

[161] **William Powell:** That is also one for us to develop when the Welsh Local Government Association comes to see us shortly, because that is its natural role.

[162] **Julie James:** On that one little point, they are probably too small for the people from the National Grid to be aware of, but the Welsh Government has supplied a single source of expertise for energy-from-waste projects for the exact reason that you have mentioned, which is, basically, that none of the local authorities had the appropriate expertise. I do not know whether you are aware of that, but it seems to have accelerated the process a little, although probably not enough.

[163] **Mr Wells:** I was not aware of it. Is it in relation to the Brig y Cwm project, which I understand has been withdrawn from the IPC?

[164] **Julie James:** No, it is not. That is why I said that they would probably be below your radar. They are all smaller, mostly anaerobic digestion projects. Nevertheless, the general point is that the Government recognised that the local planning authorities did not have an expertise in that technology, so it provided a central point of assistance. It is a slightly different point, but I think that you are all saying that that is something that might also work for these sorts of projects.

[165] **Mr Wells:** It is certainly an option to be explored. I appreciate your advice on that.

[166] **Julie James:** That was not my actual question; I just wanted to make that point. I want to have a better understanding of something that you said earlier about planning for capacity and the level of cabling you had to put in to do that. On a personal point, I want to declare an interest—you mentioned a few companies that I have a family connection with, so I just wanted to put that on the table.

[167] Does the particular mix of renewables and more long-term generation, such as coal and gas, make a difference to the cabling? Do we need to have a better picture in advance of your decision, or are you basing it on the maximum capacity that you would be expecting in an area? How does that piece of planning work?

[168] **Mr Taylor:** There are a few issues there. When you are looking at what we would term as 'deep infrastructure'—which is infrastructure on the main interconnected transmission system—you would certainly look at how often different types of generation will be on and take that into account. However, when you look at more of a connection, you are pretty much looking at what the megawatts are and what capacity is required, because there will be large amounts of time when those megawatts are required. Generally, a connection application will request a certain amount of megawatts from us, so we will design that connection to that. However, when you go deeper into your distribution and transmission system, you will take a view on diversity of generation.

[169] **Mr Knight-Gregson:** Just to say a little bit more on Colin's point, one requirement placed on the National Grid is that we must be economic, efficient and co-ordinated. The co-ordinated part, as Colin said, involves looking at how much is already connected to the network, what is the background, what is proposed to be connected, what is signed up and contracted and, in terms of being co-ordinated, what is reasonably anticipated. So, it is an exercise of looking at that and running network studies to evaluate, because we do not want to run around the country building infrastructure where we do not need it. The first question is how much we can accommodate on the existing network and what reinforcements might be needed either to reach a remote location that is not on the network or for an existing location that does not have the network capacity to carry the amount of power that needs to be accommodated.

[170] **Julie James:** To be clear, what I was getting at was how future-proof the mid Wales or north Wales connections are likely to be. I understand the points that have been made about the current windfarm applications and so on, but if, for example—I know that this is way off the technology radar at the moment—shale gas comes to fruition under Wales or the pyrolysis techniques for energy from waste get much better, would we be talking about having to redo the infrastructure or are you putting in enough capacity to deal with that? Is there some technical issue that I am not aware of?

[171] **Mr Knight-Gregson:** You will appreciate that we are not yet consulting on our north Wales connection project, but if we take the mid Wales project, there is a proposal for a 400 kV transmission connection and a grid substation connecting 400 kV to 132 kV where SPEN and SSE will connect and then, on a deeper level, SPEN will have windfarms connecting into its network. So, in that arrangement, as I have already explained, we currently have just over 840 MW to accommodate and, in a double circuit 400 kV transmission connection, there is some headroom or future-proofing.

[172] Perhaps picking up a question that we did not quite reach earlier on Friends of the Earth, when a customer comes to the National Grid seeking a connection, we are required to offer a connection that is developed according to certain standards, namely the security and quality of supply standards, which are in place in the interests of consumers to ensure that we all have reliable electricity supplies. The ideas outlined by Friends of the Earth do not meet the contracted amount of generation that we need to connect and do not meet the figures that were referred to by the First Minister in July in a network-compliant sense, so the solution would not be compliant with the security and quality of supply standards. So, there are circumstances in which customers can seek, through customer choice, a non-compliant connection, but those circumstances do not apply in mid Wales. Our customers have not made that choice. So, if you had a connection that was of a lower capacity, there would be questions around having to constrain off windfarms, namely paying them not to generate, and we have had adverse media coverage on such situations in Scotland. Hopefully, that touches on some of those issues and picks up the earlier question. I do not know whether Colin wants to add to that.

[173] **William Powell:** That is helpful and also answers my follow-up question.

[174] **Llyr Huws Gruffydd:** Fel Aelod sy'n cynrychioli rhanbarth Gogledd Cymru, mae gennyf ddiddordeb penodol ym mhrosiect cysylltiad gogledd Cymru. I ddechrau, beth yw statws presennol y prosiect hwnnw?

Llyr Huws Gruffydd: As a Member who represents the North Wales region, I have a specific interest in the north Wales connection project. To start, what is the current status of that project?

[175] **Mr Knight-Gregson:** We have two signed connection agreements—one with Horizon Nuclear Power at Wylfa for a 3.6 GW nuclear power station and one with Centrica, which is indicating landfall at Wylfa. So, both are at Wylfa, and the one for Centrica is for 1 GW. With a round 3 offshore lease area awarded to Centrica, which is capable of 4.2 GW, there is a clear potential for more of that, particularly given its proximity to the Anglesey coast, to come ashore at Wylfa or elsewhere in north Wales. We are currently working through the range of options for all of that, and it is our intention to explain that early in 2012, when the evaluation and analysis have been concluded.

[176] **Llyr Huws Gruffydd:** Beth fydd yr amserlen arfaethedig o hynny ymlaen?

Llyr Huws Gruffydd: What is the proposed timetable from then on?

[177] **Mr Knight-Grigson:** The process in the Planning Act 2008 rightly places great emphasis on pre-application consultation. Our approach to the design and routeing of new transmission infrastructure is very much one of starting by asking what the strategic options are and then carrying out a lot of evaluation, consulting on the options with key stakeholder bodies, and reaching a view as to which option or combination of strategic options ought to be evaluated further in the form of route corridor studies and more detailed investigations. We then conduct those route corridor studies, in terms of different types of technology: underground cables, overhead lines and subsea cables, where appropriate. We then take any emerging front runners from that process into a first round of public consultation, but we will also consult on the whole lot, including the options that we looked at, the route corridors that we have evaluated, and those sorts of considerations. That is our first major round of public consultation. I will give a few examples from some of our major projects. That stage in relation to mid Wales precipitated over 6,500 representations. Down in Somerset, on the works associated with the Hinckley connection, there were over 8,000 representations. So, it is a big task for us as a proponent to take stock of all of that, digest it, consider it and respond to it.

[178] Beyond that stage, we would look to carry out the analysis, provide feedback on our response to consultation and then move to an announcement on a preferred corridor and further work on the particular technology solutions available. In some instances, the proposals might involve a combination of overhead and underground cabling, and developing a proposal through the formal environmental impact assessment stage, which in itself needs about 18 months to be conducted thoroughly. There would then be further rounds of public consultation and engagement through community fora and thematic groups. So, it is a long process—that is what I am explaining. In the context of north Wales, we do not anticipate being ready to apply for any form of consent until the end of 2014 at the earliest.

[179] **Llyr Huws Gruffydd:** Diolch am yr ateb cynhwysfawr hwnnw. Mae dau beth yr wyf am ymdrin â hwy. Yn gynharach eleni, rhoes Ofgem £1 filiwn i National Grid i gynnal astudiaeth ddwy flynedd o ran rhedeg cebl trydan tanddwr arfaethedig o Ynys Môn i sir Benfro. A ydych yn rhagweld y byddai

Llyr Huws Gruffydd: Thank you for that comprehensive answer. There are two things that I want to pick up on. Earlier in the year, Ofgem gave £1 million to National Grid to carry out a two-year study of running an undersea power cable from Anglesey to Pembrokeshire. Do you anticipate that that

hynny'n effeithio ar yr angen am seilwaith foltedd uchel newydd yn y gogledd?

would have an impact on the need for high-voltage infrastructure in north Wales?

11.45 a.m.

[180] **Mr Knight-Grigson:** You may be familiar with the fact that National Grid is required under its licence to publish information that relates to offshore development opportunities on transmission in a document called the offshore development information statement, which is available on our website. That looks at a range of scenarios, because, in the offshore context, are connections going to be made in a radial way to shore, or will they be made in a radial way with some linkage to other offshore windfarms, which is conceptually referred to as 'radial plus', or will the solution be what is termed 'co-ordinated' offshore regime? The third version of our offshore development information statement was published in September, and it sets out a range of scenarios. You will see that the document includes information about a HVDC cable arrangement in a co-ordinated scenario to Pembroke, where there is some capacity in the network as part of that process. The money from Ofgem provides further funding to allow National Grid to do further exploratory studies and investigations around that conceptual idea. You will also see in ODIS that, even in that scenario, there is a requirement for an AC connection of around 3 GW to Wylfa on the mainland.

[181] **Llyr Huws Gruffydd:** Mae fy ngwestiwn olaf am roi ceblau o dan ddaear. Nid oes angen caniatâd cynllunio ar gyfer ceblau tanddaearol, er bod angen caniatâd iddynt mewn cyd-destunau eraill, wrth gwrs. Sut byddwch yn sicrhau bod cymunedau lleol yn cael eu cynnwys yn y broses o leoli'r ceblau hynny?

Llyr Huws Gruffydd: My final question is on the placing of underground cables. Planning permission is not required for underground cables, although it is required for their use in other contexts, of course. How will you ensure that local communities are included in the process of situating those cables?

[182] **Mr Knight-Gregson:** You are absolutely right to say that underground cables per se are a permitted development. Notwithstanding that, I think that you have all had an electronic copy of a document detailing our approach to the design and routeing of new electricity transmission lines, but I can pass hard copies of it around if you have not. Irrespective of the technology, whether it is overhead or underground cables, we see the process as being very much one of engagement, consultation and discussion about precisely where our infrastructure should be and what form it should take. So, we do not see any less of a process associated with an underground cable installation as we do with an above-ground line. From an environmental impact assessment point of view, we would want to ensure that all of the right consultations are undertaken and that the proposal ends up in the right place. To effect the transition from overhead to underground needs something called a 400 kV sealing end compound, which requires planning permission. So, there would be a very important local planning application process and consultation process in that regard.

[183] **David Rees:** You talk about north Wales and mid Wales, but, of course, there is also south Wales, which is a heavy user of energy generation. Can you confirm that the infrastructure within south Wales is sufficient to handle the current projected figures, because we have a 1 GW power station in Pembrokeshire that may come online? The link to Pembrokeshire will provide a lot more power coming through, and there is at least 1 GW of energy generation coming in in my area of Port Talbot. Can you confirm that the infrastructure in south Wales is sufficient to handle it all?

[184] **Mr Knight-Gregson:** I may need to come back to the committee with a note on that; you will appreciate that I am not an engineer or a network designer. My understanding is that there are some constraints in terms of the routes out of south Wales. South Wales is a net

exporter of power, as is north Wales.

[185] **Lord Elis-Thomas:** Especially sometimes—I am thinking of Dinorwig power station.

[186] **Mr Knight-Gregson:** Yes, indeed. There are three routes out of south Wales; two of those are 400 kV double circuit routes and one is a 275 kV route, which is the above-ground line across the Severn estuary. There is also a below-ground Severn crossing in a tunnel, which is underground cable, and further cables at Ross-on-Wye, which is the other route out of south Wales. Underground cables can in themselves be a constraint on power flows because, to match the equivalent rating and power flows that you can get with an overhead line, it may be necessary to install additional underground cables—some of the points that we talked through earlier. So, there are limitations, but I am not a network designer, and do not quite have all the facts and figures at my fingertips to answer that. We could come back to the Assembly with a note on that, certainly.

[187] **David Rees:** May I ask another question, Chair? In the paper submitted by National Grid, paragraph 8 indicates that

[188] 'In Britain we run systems that deliver gas and electricity across the entire country',

[189] so I am assuming that National Grid covers the entire country. In paragraph, 32 you say that you would be unhappy to devolve energy consenting responsibility as you would be

[190] 'concerned if we were to have a trans-boundary project which ended up being only partially consented in one or other of the respective administrative areas'.

[191] Are there procedures in place to handle the same scenario for Scotland? That is the first question that I want to ask.

[192] **Mr Knight-Gregson:** No, there are not. It is a consideration in trans-boundary projects with Scotland. I do not know whether Colin wants to comment, but the short answer is 'no'—there are no arrangements in place to deal with those scenarios. To answer the first point about Great Britain, it is our gas transmission side of the business that extends into Scotland in terms of our network ownership; in electricity transmission, we are the network owner in England and Wales and system operator across the whole of Great Britain, but the Scottish transmission system owners own the networks in Scotland. Colin, I do not know whether you want to add to that.

[193] **Mr Taylor:** As Steve said, Scottish Power and Scottish and Southern Energy own and run the transmission system in Scotland. There have been a number of cross-border projects, going back to the mid-1990s, when there was a new Scotland-England overhead interconnector, and there was very close co-operation on that—there were planning issues on both sides of the border, but we collectively understood and made the need case to the respective planning authorities. I guess there are some high-voltage, direct current interconnectors and subsea cables and cross-border projects that we are both working on, and we are actually in a joint venture on those. Again, it is just making sure that we get everything lined up. I would not say that we have had any particular problem there.

[194] **David Rees:** My concern has been one of discomfort more than anything else.

[195] **Mr Knight-Gregson:** The context of our comments is one of concern about energy policy and planning policy. Our overarching message is that we think that it is really important that it is as joined up as possible. We took comfort in some of the comments of the previous Minister for Environment, Sustainability and Housing when appearing before this

committee; in considering the national policy statements, it was noted that there is quite a close alignment between UK and Welsh Government policies on a number of fronts around low-carbon energy requirements, and so on. However, the concern for us is a trans-boundary issue—if there are to be disagreements over energy policy, and planning policy as a consequence, then that is not the best set of circumstances for delivering a trans-boundary project.

[196] **David Rees:** I recognise that the issue of confidence is one that was mentioned earlier this morning. Would it be fair to say that if we had one body dealing with all these issues within Wales—because at the moment we have the associated developments, which are dealt with separately—it would give greater confidence, as long as the maturity came through as well?

[197] **Mr Knight-Gregson:** Your question touches on collaboration, and it may touch on the bringing together of the Countryside Council for Wales and the Environment Agency and the relationship with the Welsh Government. The more co-ordinated and joined up those arrangements are, the better. There is a strong role for the Assembly to play through the extensive range of ancilliary consents and matters that are referenced in the new Planning Act 2008 regime. Our analysis is that there are 42 different consenting regimes in England and Wales outside of the Planning Act 2008, and an additional 36 that only apply in Wales, of which Welsh Ministers are directly responsible for 22 and 16 are Wales-only consents. Local authorities are responsible for 17, and 15 of those are for Wales only. The Environment Agency is responsible for 13 consenting regimes across England and Wales, while the Countryside Council for Wales is responsible for seven. As the Infrastructure Planning Commission recognised in advice note 11, there is not, and perhaps never will be, a single consent regime process in England or Wales. Collaboration and co-ordination are important, and there is a big role for us as developers to line up all of the different consenting requirements around a major infrastructure project.

[198] **Lord Elis-Thomas:** I think that you mentioned a piece of work that listed all of the planning consents. Is that work that the National Grid has done?

[199] **Mr Knight-Gregson:** It is a note looking into the background of the issue; we are happy to share it with the Assembly.

[200] **Lord Elis-Thomas:** We would welcome that very much. As you have no doubt observed this morning, one of the continuing themes of this inquiry is shedding some more light, at least to begin with, on the whole complexity of the planning process and then, as we work our way through that, perhaps even to make some fairly radical recommendations about how there could be more effective co-ordination and better delivery, to use the in-word of Welsh Ministers.

[201] I see that there are no further questions. We have been at it for a substantial amount of time this morning. I am grateful to you for spending this time with us and for your willingness to answer questions directly. We will no doubt be in touch with you again on some issues. I have a few issues with regard to small hydro projects that you probably know about already, but I will not take up the committee's time with those. Diolch yn fawr.

Daeth y cyfarfod i ben am 11.59 a.m.
The meeting ended at 11.59 a.m.