



**Cynulliad Cenedlaethol Cymru
Y Pwyllgor Menter, Arloesi a Rhwydweithiau**

**The National Assembly for Wales
The Enterprise, Innovation and Networks Committee**

**Dydd Iau, 9 Tachwedd 2006
Thursday, 9 November 2006**

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Cofnodir y trafodion hyn yn yr iaith y llefarwyd hwy ynndi 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 o'r Cynulliad yn bresennol: Christine Gwyther (Cadeirydd), Leighton Andrews, Alun Cairns, Andrew Davies (y Gweinidog dros Fenter, Arloesi a Rhwydweithiau), Janet Davies, Alun Ffred Jones, Carl Sargeant.

Swyddogion yn bresennol: Bethan Bateman, Uwch-ddadansoddwr Polisi Economaidd; Tracey Burke, Pennaeth Strategaeth ac Adolygu; Lynn Griffiths, Pennaeth Cynhyrchu Ynni Glân a Dur, Ynni Cymru; Gareth Hall, Cyfarwyddwr yr Adran Menter, Arloesi a Rhwydweithiau; Dr Ron Loveland, Cyfarwyddwr, Ynni Cymru.

Eraill yn bresennol: Neil Crumpton, Ymgyrchydd, Cyfeillion y Ddaear Cymru; Rod Edwards, Cyfarwyddwr, Dulas Cyf; Dave Proctor, Rheolwr Ynni a Chontractau Strategol, Dow Corning; Mark Tyso, Cydlynnydd Lleihau Ynni, Dow Corning; Emma Watkins, Pennaeth Polisi, CBI Cymru.

Gwasanaeth Pwyllgor: Chris Reading, Clerc; Abigail Phillips, Dirprwy Glerc.

Assembly Members in attendance: Christine Gwyther (Chair), Leighton Andrews, Alun Cairns, Andrew Davies (Minister for Enterprise, Innovation and Networks), Janet Davies, Alun Ffred Jones, Carl Sargeant.

Officials in attendance: Bethan Bateman, Economic Policy Senior Analyst; Tracey Burke, Director, Strategy and Review; Lynn Griffiths, Head of Clean Energy Production and Steel, Energy Wales; Gareth Hall, Director, Department for Enterprise, Innovation and Networks; Dr Ron Loveland, Director, Energy Wales.

Others in attendance: Neil Crumpton, Campaigner, Friends of the Earth; Rod Edwards, Dulas Ltd; Dave Proctor, Energy and Strategic Contracts Manager, Dow Corning; Mark Tyso, Energy Reduction Coordinator, Dow Corning; Emma Watkins, Head of Policy, CBI Wales.

Committee Service: Chris Reading, Clerc; Abigail Phillips, Deputy Clerc.

*Dechreuodd y cyfarfod am 9.06 a.m.
The meeting began at 9.06 a.m.*

Cyflwyniad, Ymddiheuriadau, Dirprwyon a Datgan Buddiannau Introduction, Apologies, Substitutions and Declarations of Interest

[1] **Christine Gwyther:** I welcome you all to this meeting of the Enterprise, Innovation and Networks Committee. We will spend most of this morning discussing the Government's response to, and the subsequent actions on, the recommendations that we have made. I have not asked Members to switch their machines off, but I am pleased to see that you have done so. I remind you that there are headsets for translation and for amplification. Please ensure that all of your electronic instruments are switched off completely. If there is an emergency, the ushers will direct us to the nearest exit. The assembly point for us is at the rear of the Pierhead building.

[2] We have received an apology from Kirsty Williams, who is, unfortunately, unwell this morning. We have also had an apology from the representative of Tower Colliery who we hoped would give evidence this morning. That withdrawal was made only on Monday, so I felt that it was too late to ask another energy producer to come in Tower Colliery's place. It was just not possible.

[3] We have quite a full agenda, and we will take evidence throughout the morning.

9.07 a.m.

Polisi Ynni yng Nghymru: Cyfeillion y Ddaear a Dulas Cyf
Energy Policy in Wales: Friends of the Earth and Dulas Ltd

[4] **Christine Gwyther:** The first section is evidence from Neil Crumpton from Friends of the Earth. We will also hear evidence from Rod Edwards from Dulas Ltd. I will ask Neil to start the proceedings with a short oral update on the paper that he has given us. We will then go on to Rod's contribution, and we can then open it up for discussion.

[5] **Mr Crumpton:** Thank you for the invitation, though it was short notice for us too. As environmental campaigners, we are increasingly busy—month by month, even—so what I will say now will probably need a bit of checking. It is more of a flavour of where we are rather than the exact details of our thinking. I will talk about this document and the energy efficiency document that followed, and about one or two of the things that have happened since then.

[6] We very much welcomed the target of 4 TWh. It was quite a progressive move at that stage, a few years ago, although things seem to have moved on so fast that it is probably not regarded as being so radical now. It was a good target and we welcomed it. However, we would say that it was heavily biased towards wind energy—which is fair enough in many respects—but it lacked some detail on how to bring other technologies, all the other smaller renewables, on from biomass. The process with wind has been very much delayed. There was something like 16 months' delay with technical advice note 8 and the strategic search area refining process, which has been carried out very slowly by local authorities. That is causing delays in getting wind capacity built, so it is highly likely that targets will be missed, probably quite significantly.

[7] There are also issues with upgrades, but I do not want to steal Rod's thunder on most of these issues, so I will just say that that is blatantly obvious, from our perspective.

9.10 a.m.

[8] I note that handing over too much power, or derogating too much responsibility, to local authorities on wind power was probably not a good move. A strategic drive from the Assembly was probably needed to push these things through, given the debates about wind power and even the misinformation that we continue to see on wind energy in the media, certainly in the press.

[9] I would just note that we wanted the Camddwr windfarm included in the initial round of sieve mapping, or whatever. I understand that the Royal Air Force has withdrawn its objection to that scheme, which could be big, as it is a 300 MW windfarm, so it is a pity that that did not happen. The Assembly could have been a bit more radical and could have worked more with the RAF and the developer on that.

[10] The Cefn Croes windfarm is up and running with a fairly good load factor of 33 per cent, which is more than the usual 30 per cent. Moel Moelogan is at 37 per cent load factor, so there is a good wind resource up there in the Welsh hills, and we should not forget that.

[11] The energy efficiency plan was very poor, in our view. It lacked focus, targets or any kind of coherent strategy to get things moving. It missed a great opportunity in terms of the employment that you generate by putting in energy efficiency at a local level. I compare that with the proposals to bring jobs to Pembrokeshire by installing a major gas plant around the

liquefied natural gas terminals, for example. Those are highly automated schemes. One such plant is proposed off Pembrokeshire, which will be a 2 GW plant, and another is proposed on the north side that will possibly go up to 2 GW. On the energy efficiency side of these big gas plants, around three times more than the 4 TWh target will be wasted in heat.

[12] This is the centralised generation that you will hear many people talk about, which we are trying to move away from. There will be room for big schemes, such as centralised generators, but we would like to see them used for possible carbon capture and storage, and I am not sure whether Pembrokeshire is a good place for that. However, we would also like to see the possibility of erecting light or heavy industrial buildings around such sites so that the heat can be used. The possibility is that you might be able to do that at Uskmouth, where another big 800 MW power station is proposed, next to the smaller coal station.

[13] On coal, it is a pity that the representatives of Tower Colliery are not here. We very much support clean coal as long as carbon capture and storage methods are used. A scheme applied for yesterday in Teesside of 800 MW will be a good demonstration. Although the UK is small, if we can prove the technology quickly, and we are in a very good place to do so, China, India and other major coal users could well benefit. We will then be punching greatly above our weight. You might ask how that applies to Wales, but there may be some saline aquifers in the Irish sea.

[14] Moving on quickly, the inspector's decision on Awel Aman Tawe is regrettable. It seems pretty perverse and we hope that Awel Aman Tawe will get a judicial review. I do not understand how the inspector can say that it would not contribute to the 2010 targets when the likelihood is that the main part of delivery of the 1,000 MW or so will happen after 2010.

[15] On energy efficiency, again—and sorry that I am not going through the recommendations sequentially—an exemplar building in north Wales would be helpful, as regards the Colwyn Bay office. If you were not installing the best of everything in that office, that would be, dare I say, a major error.

[16] We would like to see far more clarity for local developments in terms of the Merton 10 per cent rule and getting things built, such as solar panels and so forth, but I will leave that to Rod.

[17] **Christine Gwyther:** Can you explain what the Merton 10 per cent rule is, please?

[18] **Mr Crumpton:** A new build has to have a 10 per cent requirement for renewable energy built into it, as it were, be it wind turbines or solar panels on roofs and so forth. Also, we need to push forward the idea of microgeneration. I will stop there; I would rather answer questions than take any more time at this stage.

[19] **Christine Gwyther:** Thank you, Neil. I will ask Rod to make his presentation. We have found that, with questions on which there are very similar views, perhaps, from the presenters, it is useful to have all of the questions together. So, if you are happy to do that, Rod, you can proceed.

[20] **Mr Edwards:** Good morning. I am not quite as well-known as Neil. My name is Rod Edwards; I am a director of a company in mid Wales called Dulas Ltd. We have been in the renewable energy industry for over 25 years, and we are well-respected within Wales and throughout the UK. I will say at the outset that we are not just wind specialists; we cover all technologies—wind, hydro, biomass and photovoltaic technologies and, very shortly, solar water heating.

[21] Some of my colleagues and I put together some ideas and tried to look at each

recommendation and judge what we see as an industry player. In short, the 2003 energy paper provided a very good start, but things have moved on; there are areas that could certainly be improved. For the purpose of the presentation this morning, it is probably best that I just focus on the recommendations—Dulas’s wish list, basically, if you were to magically say to us that we could do whatever we wanted to do. I have a few points on the things that my colleagues and I would certainly like to see done.

[22] First, it is very timely to be reviewing the 2003 energy paper because a lot has moved on, and a lot is moving on. The Stern report, published this week, gives a huge amount of food for thought. I believe that the Climate Change and Sustainable Energy Act 2006 is now on the statute book, or will be very shortly, and that will affect how we live in Wales. The energy review came out this year and a White Paper will be published shortly. Given that the overarching UK policy is changing, I think that it is timely that we have another look at our energy policy in Wales. I think that we would recommend as a matter of urgency that this process continues very quickly.

[23] The second point on our wish list refers to an urgent review of technical advice note 8. A couple of things are proving to be a problem, one of which is the formulation of supplementary planning guidance. It is not about the guidance itself—although I think that, in some quarters, there is quite an argument about that—but we are finding that the length of time that it is taking to produce guidance sends very confusing messages to the industry. I think that it would be very useful if the Welsh Assembly were to take a much closer look at the speed at which that is happening and try to encourage local authorities to lay down their supplementary planning guidance in a much more timely fashion.

[24] I mentioned streamlining the planning process. I am not suggesting a loosening of the planning system, but we would like to see some effort made to ensure that the planning system actually operates as it should do, particularly in terms of the time that it takes to process planning applications. There is a statutory obligation for a planning application to be determined within 16 weeks if it is an environmental impact assessment application. We recently made an application on behalf of a farming family in mid Wales that wanted to develop its own windfarm. The application sat with the local authority for 22 months, which was too long. The only recourse that the proposers have would be a public inquiry. They just did not have the money; all that they could do was to keep saying that they would extend it again. I would like to see some streamlining of the system so that the targets for getting applications through the planning system are set to a timetable that is agreed by everybody and so that, by and large, the timetable is stuck to.

9.20 a.m.

[25] The other area of TAN 8 that I really believe needs to be strengthened—and Neil alluded to it—is the guidance for other technologies, particularly microgeneration technologies. The guidance needs to be strengthened and clarified. Neil mentioned the figure of 10 per cent in Merton Borough Council in London. It was the first local authority to bring in the rule that all new major developments had to use 10 per cent renewable technology or have a very good reason for not doing so. My company has seen a huge upswing in activity from that—absolutely massive. We are swamped, because the big developers do not know how to do it; they do not know where to get the technology from. It is a growth industry, and it could be a big opportunity for Wales. I urge the Welsh Assembly Government to give serious consideration to the 10 per cent renewables rule under TAN 8.

[26] My third point is that, for large-scale development of renewable technology—whether wind, biomass or, in some cases, small hydro—there is a huge problem with connection to the grid. It will get much worse in south Wales with the proposed new liquid natural gas combined-cycle gas turbine. It has the potential to block any connection to the

grid in south Wales because the national grid under the river Severn is too weak to take all the applications that have been made for grid connection. I would like to see a much more proactive approach being taken on the part of the Welsh Assembly Government with the declared net capacities and the national grid company to ensure that the infrastructure exists to accept the 4 TWh target. Things are happening, but they are happening very slowly, and, to my mind, they should have happened two years ago. It was in the policy, but it really has not been taken forward.

[27] My fourth point is that we would like to see much stronger support at a local level, including an element of core funding for independent energy agencies. Until very recently, we had an energy agency in mid Wales. One of the reasons why it had to go into liquidation was the lack of core funding. It did some very good work on taking energy efficiency and renewable energy issues out into communities. It provided a one-stop local shop, and people knew that, if they wanted advice on energy, they could go to the energy advice centre. There are energy advice centres in south Wales and in Conwy. From talking to them, I know that some element of core funding would secure their activities for a number of years. They are worth supporting.

[28] My fifth point is that we would like to see much clearer and more robust presentation from WAG, avoiding, in documents such as the microgeneration strategy, words such as 'encourage', 'engage' and 'assist'. I would like to see the word 'do' a bit more. It is important that the language in the policy is right so that it really encourages people and sends a message that this is going to happen: it is not an aspiration; it must happen.

[29] Finally, we would like to see WAG supporting a much wider ranging education campaign, promoting renewable energy and emphasising the imperative, particularly in light of the Stern report, for the increased deployment of renewable energy. We will see large-scale deployment of renewable energy in Wales only when people see and establish the need for it at a local level. Planning officers, particularly, local government officers, elected officials, the media and the general public do not really understand why it has to happen. This leads to quite bizarre planning decisions. For instance, a client of ours in Barmouth wanted solar panels on his roof. He does not live in a national park or a listed building. It took him nearly four months to get planning permission, and at one point the planning officer said that he would grant him planning permission if he put the panels on the other side of the house where they could not be seen from the street. However, that side of the roof faces north and they have to be on the side that faces south. This happened because the planning officer did not understand why they have to be on the part of the roof that faces south. He did not understand why our client wanted to do it. He wants to do it because he feels strongly that renewable energy generation in houses and people taking responsibility is a good thing. Like Neil, I would prefer to conclude there and allow the committee to fire questions at me.

[30] **Christine Gwyther:** Thank you very much indeed, Rod. There were challenges for the Government in your presentation, which I think Members will pick up in their questioning. I will then ask Ron Loveland if he wants to contribute at the end of this session before the tea break.

[31] **Leighton Andrews:** I will start with some questions to Rod Edwards about a couple of the things that he talked about. I am interested in what you are saying, Rod, about the demands on your company and the fact that you think that there is potential for Wales to take forward the kinds of things that you are engaged in. In my constituency, we have people looking at small hydro projects and the local authority is looking at using methane. I would find it hard to know where to point people who come to me with ideas. I would be concerned if we started to set up more agencies, because, in a number of areas of public life, we find ourselves putting money into advisory agencies or into advertising, as you suggested, rather than into schemes. What really matters here is coming up with schemes that are working and

are sustainable. I would like your response to that.

[32] My second question is for both respondents. Have you looked at the current powers of the Assembly and at what they would be in respect of what we are able to do with regard to building regulations and planning? You talked about the 10 per cent requirement in Merton and so on. Most of us around the table would like to be able to do more in respect of laying down obligations for new developments. However, there is an issue about our current powers and what they may be in the future. So, I would welcome any observations that you have on that.

[33] I also wanted to ask about wind power and the Severn barrage. I know that Friends of the Earth produces plenty of surveys that tell us that wind power is popular. However, all of the experience on the ground, particularly in the Valleys, shows that it is not. There are plenty of groups campaigning against wind power, but precious few, apart from those with a financial interest in the development of wind power, are making the case in its favour. Three different schemes are currently being planned either in or around my constituency. What I heard from Friends of the Earth was a plea to ride roughshod over local democracy in terms of what you are saying about the planning rules. There is a real anger in the Valleys about the idea that, having been exploited for centuries in terms of the development of the coal industry, the Valleys are now to be plastered with windfarms. If you are going to challenge that and say that public opinion is more positive about wind than that, I see precious little evidence of people on the ground making that case. In my experience, the organised lobbies are resistant.

[34] You did not say much about the Severn barrage in your presentation, although you say a lot about it in your document. I see the arguments that you make on the environmental side, but given the wider environmental consequences that we face, I find your arguments unpersuasive at the moment, as, I suspect, do many of my colleagues.

[35] **Christine Gwyther:** Thank you very much. We will start with you, Neil, if that is okay.

9.30 a.m.

[36] **Mr Crumpton:** On wind power, we have only ever commissioned one study, but numerous groups and authorities and so on have commissioned surveys on wind, and these are generally independent and authoritative. There are no trick questions in there. The majority of people respond positively—it is something like 70:30, or sometimes even less objections are made—but it is the people who oppose who tend to get organised and go to the public meetings. I think that that is probably true with most types of developments. If a Government decided on a 4 TWh windfarm, and it has generally been agreed after consultation and all the other things that happen, and it then came out with a plan to move the windfarm into strategic areas, with the opposition groups in those meetings where that was decided, there is a point at which you have to take control if the local authorities then start to whittle away at the strategic search areas. Blair and the UK Government said that they were going to build some more nuclear power stations. I do not think that public opinion is in favour of that. I do not think that the case for that has been made, but that is what they say that they are going to do. At some point, you have to apply a degree of authority, be proactive and take the agenda forward. I think that the opposition has gone forward a long way on misinformation and it is, quite frankly, immoral to do that kind of thing to technologies that can do a lot to help.

[37] On the barrage, sorry, I did not speak to that, because I thought that I had gone over my five minutes. It will cost £14 billion and there is a lot that you can do with £14 billion, such as building more offshore windfarms and making progress with a carbon capture and storage policy. The main thing to do is to reduce emissions in the next few decades. The

barrage is less cost effective in terms of reducing emissions quickly, although it will do it in a period of more than 100 years, and we need to get the emissions down quickly. Regardless of the environmental consequences, it would not be a good investment in that sense, as there are better things that you could do with that money—even onshore windfarms, but certainly offshore windfarms and other renewables. That is where we are coming from on the barrage.

[38] There is feeling that if you put a windfarm on the grid that the lights may go off—people have been saying that, for heaven’s sake—or that you will have problems balancing the grid. However, if you put a barrage on the grid, even the largest wind-power programme that we are expecting, it would be 10 times the daily changes in grid power, with 8 GW pulses within an hour. Who is looking at that? It is an incredibly large amount. Wind tends to balance out because of the variations around the country. Anyone who is anti-wind and pro-barrage has a big question to answer in that respect.

[39] I would say that lagoons should be given a chance. They could be built sequentially, so that is where we would start. If a decision were taken to build the barrage, I do not think that it should be built in this decade and it probably should not be built in the next decade. Some people believe that the barrage would provide a good flood defence, but we are not at that stage yet. We expect only 0.5m to 1m rise in sea level over the next century—that may go up a bit in the next assessment report—and it would have to be higher before the flood defences that we can build now would require a major barrage; by the time that we got there, a lot of the world would be in turmoil.

[40] **Christine Gwyther:** Were there any questions for Neil that were not picked up?

[41] **Leighton Andrews:** I asked both of them about the Assembly’s powers.

[42] **Mr Crumpton:** On 50 MW developments, we have been calling for the consent policy for windfarms of over 50 MW, and other large developments, to be decided in Wales. All the large windfarms in strategic search areas, the ones that are over 50 MW, will be decided in London and that cannot be good.

[43] **Leighton Andrews:** What about building regulations?

[44] **Mr Crumpton:** On building regulations, I believe that Rod would be better placed to answer that.

[45] **Mr Edwards:** On energy agencies, their role is to give impartial advice—I represent a commercial company, and I have to sell things. The Mid Wales Energy Agency played a valuable role in the area, in that, if a housing association, a school, or an individual wanted impartial advice on energy efficiency or renewable energy—what to do and who to go to—they felt that there was someone who they could phone or pop in to see who would give them quality, impartial advice. That is the importance of the energy agency. I take the point about having more agencies—I agree with that. However, this is about providing impartial advice for people, particularly given the importance that I place on renewable energy at any level, because of the environmental imperative; they serve a useful purpose, purely for that one-stop, impartial advice.

[46] On the Assembly’s powers, I am not 100 per cent up to speed on the latest changes that are proposed and adopted. However, as I understand it, it is within the Minister’s powers to issue a ministerial interim planning policy statement to say that local authorities will require 10 per cent—I understand that. I am not a constitutional lawyer, but my understanding is that the Minister is able to do that. I do not believe that I can add a great deal to what Neil said on the wind question. As to the Severn barrage, I am afraid that I do not have a view—I have little experience of it all, so there is little that I can add.

[47] **Christine Gwyther:** I understood that building regulations were an aspiration for next May, but perhaps I have missed something there.

[48] **Mr Edwards:** Someone asked me yesterday whether or not the Assembly can determine building regulations. I do not believe that it can determine building regulations, but I believe that it can determine planning, as far as I understand it; however, I am not entirely clear on that.

[49] **Christine Gwyther:** Right, thank you. Janet is next, then Alun.

[50] **Janet Davies:** There are many questions, but I will try to keep to a few. It struck me as ironic when Neil talked about the waste of energy from the liquefied natural gas stations in Pembrokeshire, when, at the other end of Wales, we have a company that is screaming for energy, namely Anglesey Aluminium, and the issues at Wylfa. I do not know how you connect the two, but it struck me as extremely ironic.

[51] You mentioned wind and the barrage. However—and we will presumably be able to ask questions of the Government later—on infrastructure and connecting into the grid, and, if the grid is weak going under the Severn, this Government has to talk to the UK Government about that, to try to address that issue. I find your arguments on the Severn barrage, Neil, far more convincing than Leighton did. However, it seems as though your paper still has work in progress on it, because you have arguments here that are perhaps not proved, or not proved sufficiently. The most important thing is to go into this Severn barrage study with an open mind, and look at the right issues and ask the right questions. I do not believe that the Assembly Government has an open mind on this—it is already 90 per cent of the way towards making a decision. That is what concerns me about the barrage—it should be a thorough and rigorous study, taking all the issues into account, including all the ones that you have brought up.

[52] However, I do not agree with you on wind. This is becoming increasingly unpopular, which is a major issue, having pushed the wind argument hard over seven years, and being aware that a vocal minority comes up with peculiar arguments at times and some very unacceptable arguments, there is a shift happening, particularly, as Leighton says, in the Valleys. In the area that I represent, which is South Wales West, local authority planning committees are pushing planning applications through quite fast. For example, and it is only one of several examples that I have, a small community ringed by hills, part of which was included in technical advice note 8, has applications in for the whole area—two applications have been granted already, and it looks like a third one will also be granted. That small community will see wind turbines circling them every time that they look up at the sky. That concerns me, and I have one or two points that I would like to raise about it when we get to talk to the Government.

9.40 a.m.

[53] How do we stop losing touch with the public on this? We need to keep in touch and be able to persuade them of the argument, because, clearly, whatever type of renewable energy source you go for, there will be protest lobbies—whether it is the barrage, the tidal lagoon or biomass. If you start losing sand off Gower with the tidal lagoon you will have protest lobbies. Whatever you do you will have protest lobbies. So, keeping in touch with the public and getting the argument over is a major issue. Any ideas on how to make microgeneration more easily available would be welcome.

[54] **Christine Gwyther:** Neil, would you like to comment on that?

[55] **Mr Crumpton:** The paper on the barrage was a draft final, so if there are any typos, I am sorry.

[56] **Janet Davies:** You keep adding little bits.

[57] **Christine Gwyther:** It was in very small print; I was reading it late last night.

[58] **Mr Crumpton:** Okay. On the wind aspects, and on the wind of change that you are suggesting, we can only do so much as an environmental organisation. We are pretty small, so we cannot be everywhere at all times. I cannot say that I know exactly what has been going on in every area, but it sounds as if there are some places where the visual impact, if it is cumulative on all hills, will cause a reaction. I was talking about the generality that most of the strategic search areas are being whittled away for one reason or another. I do not know what people are particularly concerned about in those areas, maybe in the Valleys, but it would be good to find out what their particular concerns are. Is it because of the visual impact alone? Is it that they do not believe that they produce any energy of any significance? Is it that there are problems with televisions being interfered with? It would be useful if that kind of information and feelings were identified and addressed. We can only do so much, so if there is anything that the Assembly Government and others can do, then that is all to the good. However, wind is a very good resource in Wales, onshore and offshore, and it is certainly one of the cheapest, so we should not discard it.

[59] **Mr Edwards:** On the last two points, the wind issue in south Wales and microgeneration, it comes down to the last recommendation on my wishlist—it is a question of education, as to why we have to exploit renewable resources. I take your point about it looking as if, in the south Wales Valleys and parts of mid Wales, it is another case of exploitation via external companies. I live in an area with a wide deployment of windfarms; that does not affect me personally, because I do not find them offensive, but I can respect that point of view. A lot of it is to do with people who do not understand why they have to be built and the reasons why they have to be in that area. One advantage that fossil fuels have over renewables is that you can build fossil fuel power stations pretty well anywhere.

[60] On your point about transporting heat in the south and not in the north, you cannot put heat or wind on a lorry; you have to exploit resources where they are found, and it is a matter of getting people to understand and accept that reality.

[61] To respond to the point about microgeneration, it is available; you can go out and buy the relevant technologies. A series of subsidies is available from the DTI through the low carbon building programme, but, again, people do not know about this. It is a matter of education and promotion.

[62] **Mr Crumpton:** I have just one point to make about Anglesey Aluminium. It uses about 250 MW, while the nuclear power station produces around 660 MW. When that station goes in 2010, there is a fairly significant tidal power resource off the north coast of Anglesey, which might produce just enough energy to supply what Anglesey Aluminium uses each year. I know that the company wants a secure supply—it cannot have an interruption in supply. However, I do not know when the national grid last went down across north Wales—I do not remember it happening—and there is also the Dinorwig station not too far away. So, back-ups are available and there are other, smaller schemes—it is likely that an LNG plant will now come to Anglesey, but if you build a massive gas plant with a 1 GW or 2 GW capacity, you are wasting a lot of heat; more than 4 TWh. We would say, ‘Don’t go there’, but if you need to build a combined heat and power plant or even a smaller scheme more in keeping with the size of Anglesey Aluminium, if you really want security of supply, then that is the way we would go. However, to waste so much heat from the really big schemes is not the way forward.

[63] **Christine Gwyther:** Are you saying that all big schemes should be sited near big industrial sites that can use the power?

[64] **Mr Crumpton:** Yes, because it is likely that new fossil-fuel centralised power plants will still be needed. We made a detailed analysis of this in a report called 'Bright Future', with all the spread sheets laid out, and even though we are decentralised CHP enthusiasts, we had to agree when we saw the figures, that it is likely that new centralised plants will be needed. I asked Sir Jonathon Porritt last night what he would do, and he does not quite have an answer. If you are going to build big, centralised plants, put them where you can put on carbon capture storage, if it is viable, at a later stage, maybe in five to 10 years' time, and where the heat could be used locally. It can be transported about 10 miles now, and in Holland, that distance is nearer 20 miles, through the use of big, insulated pipes. It is because the amounts are so massive that there is this campaign for decentralised energy. We should try to get all schools and hospitals in particular using CHP plants, and then you will have a lot more efficiency and a lot more money saved. However, that has to be driven by a strong policy, and I do not see that. You get these big gas plants being proposed just because there is an LNG terminal nearby. Some heat is needed to reheat the very cold liquid—I accept that, but it is far less than the heat that is being produced.

[65] **Janet Davies:** Can we just come back to Anglesey Aluminium? In another arena, I suggested that wind off the north coast of Anglesey and the tidal waters of the Menai Straits could be used to produce energy, but I have been told that they are not adequate for Anglesey Aluminium. That statement may be wrong, but that is what I was told. I would therefore like to hear somebody, at some point, talk about that.

[66] **Christine Gwyther:** Perhaps Ron can pick that up because, at the end of Members' questions, I would like to bring him in to see whether there are particular questions for him.

[67] **Alun Cairns:** On the last point, I spent a two-week work placement at Anglesey Aluminium a few years ago, and part of the difficulty is with the infrastructure used to take power across the island. That is why there is the need for Wylfa nuclear power station. That is part of the difficulty, and especially with regard to wind and tidal power, the consistency of energy supply required certainly would cause a major problem. That is my understanding from my experience of a couple of years ago, but things may well have changed since then.

9.50 a.m.

[68] I have a range of comments to make, and then a few questions. The last point, about making use of CHP technology, was a very good point, and there are practical things that the Assembly Government and the former Welsh Office could have easily done to improve the situation and set the example. One example that comes to mind is the gas-fired power station outside Port Talbot, and Baglan Hospital, which were commissioned at roughly the same time. They are so close to each other, but there is no link in the supply of waste energy to the other. That is something practical that could easily have been done. It was a PFI hospital, which would have added complications, but if someone wants to win the contract there is always a way through, and that is an example. As a result, there have been calls for what industries could be set up around the power station in Port Talbot. A number of industries could easily use that waste heat. For instance, you could have enormous greenhouses there growing plants and flowers and other things. I just wanted to make that general point.

[69] I am opposed to the Severn barrage, but I am quite relaxed about it, because I am sure that it will not happen. It is interesting to note in the current political climate that whenever the Assembly Government is under pressure on climate change and windfarms, the First Minister or the Minister for Enterprise, Innovation and Networks will say that we need to

look at the barrage. It gets them out of a political hole in the short term to say that they need to explore the prospects of a barrage, but I am confident that the Government will not pursue it because of the enormous amount of public subsidy it would need, the enormous legislative complications involved and the environmental impact assessments that will be needed, and the implications around that. They will take so long that Governments will change colours in the interim, and I am confident that it will not happen for the next 20 or 30 years, but it is useful to have the case against made in the way that you suggested. It is something that I had not appreciated. Those were the comments I wanted to make.

[70] Will you respond on the progress that has been made on the targets in the energy policy review that was accepted—the 4 TWh? Carbon emissions have increased in Wales in five out of the past eight years, and it would be nice to have those aspects tied together.

[71] The UK Government is talking about a climate change Bill. What should the Assembly Government be looking at in order to respond to that, because, post May 2007, it is highly likely that there will be a Welsh section of sorts in any climate change Bill, by which we will have the powers to do things differently here. There might be slight complications because it is a climate change Bill, but there is the prospect of that and we need to flag things up at this early stage.

[72] A point was made about an urgent review of TAN 8. Bearing in mind the time that it took to get to where we are with TAN 8, I am not convinced that another review is needed. Although I am opposed to TAN 8, and, as Leighton Andrews mentioned, we did not have a debate or a vote on it, I am not sure that another review would take us anywhere, other than to delay it for another two or three years and give reasons for planning authorities to reject things in the interim.

[73] On wind energy, this question is specifically to Mr Crumpton. I am a sceptic about wind energy—my record is well-known. Do you accept that a developer will generally propose a windfarm in their interest, and not necessarily in the community's interest, although there might well be a wider interest—and therefore some of the proposals do not directly benefit the community or may have a negative impact? Would changes to planning applications on some windfarms, particularly offshore windfarms and building them further offshore, for example, be a more honest way around it? So, we have environmental groups such as yours in favour of a windfarm application—and I get the impression that you are in favour of every windfarm application—and, bearing in mind that the application is coming from a developer that is looking to make money out of the project, the developer will not campaign for an additional cost by siting them a little further away, for example, but the developers are using groups like yours to demonstrate the credibility of an application that they might be pursuing that is in their financial interest. Whereas if, for example, Friends of the Earth were to say, 'Well, we like the clean energy that would result from the development, but we think that locals have a fair point,' and it were sited two miles further away, then it would be much more beneficial to the community and we would be more likely to get it. Such a pragmatic approach to the wind energy situation would be more honest and far more likely to win support, would it not?

[74] Mr Edwards, you mentioned advice and an agency. I share Leighton Andrews's concerns about this. I think that your response to his question was that you need impartial advice, but, to be frank, advice is never impartial. There is always some agenda, depending on the terms of reference of the organisation. There is rarely an honest broker, because if the advice is from a Government agency, it will be according to Government policy. If it is from a so-called independent agency, where the funding comes from will set the agenda.

[75] I would like some thoughts from you on microgeneration and how we can make a difference with it. It is an exciting way forward, because those sorts of projects give people

ownership and directly benefit the communities that progress them.

[76] **Mr Crumpton:** In response to the question on targets and how Wales is progressing with the 2020 target, apart from Cefn Croes and a few other, smaller windfarms—I do not have the figures in front of me, though Rod might—I think that progress is slow, but the point about the review of TAN 8 is that, as far as we know, the process has been delayed in the strategic search areas and also in getting the grid in place. Most of the delivery of TAN 8 will probably start to happen in 2010 and go on to 2012, or possibly even later. So, that is why there is a feeling that a review should be done to see how much of the strategic search areas has been whittled away, as it were, and what capacity is left within them. I will leave that for Rod to expand upon if he wishes.

[77] On the issue of where Friends of the Earth stands on each application, we cannot respond to them all. We get developers ringing us up all the time, and tell them that we cannot even go out to look at the site, never mind suggest ways to improve it. We call on all developers to participate with the community, to get it involved and to put in community benefits—those are not necessarily helpfully supported by policies. However, there are good community packages in some windfarm applications and those should be encouraged. We cannot get involved in these matters; we do not support all applications just like that. In general, when we appear on the media or whatever, we are responding to the general arguments about wind energy, which is often then aimed at—

[78] **Alun Cairns:** Do you accept that the interpretation of that is that Friends of the Earth supports every windfarm application? That is certainly the impression that some developers want to give.

[79] **Mr Crumpton:** I will see what we can do in the media next time. I am sure that that is the case, but there is not necessarily a lot that we can do except to explain our position when there are only about 10 seconds to put many points across.

[80] **Alun Cairns:** You could object to the occasional application if you think that it takes advantage of the local environment and the community.

[81] **Mr Crumpton:** We do not often support particular applications either, simply because we do not have the time. On the point about when we say to developers, ‘Look, we’re negotiating behind the scenes’, that is the case with Gwynt y Môr. We think that it is too wide and our members in north Wales suggest tightening it up, so that it is not seen as a kind of fence across the bay from certain areas of the Orme. So, we are, at times, behind the scenes, suggesting trimming, more community involvement or whatever. The Camddwr scheme had a great deal of community involvement, so it is a pity that that fell through.

10.00 a.m.

[82] To respond to the point about targets and offshore windfarms, they are more expensive than onshore windfarms, and they are also more visible than onshore schemes, which is sometimes not appreciated. Scarweather Sands attracted opposition for that reason, as has Gwynt y Môr. On targets, the Rhyl Flats scheme has been delayed too. Not only has Scarweather been more or less on hold but even the offshore schemes are being delayed for one reason or another. Steel prices are going up. America is buying in so many turbines that there is a shortfall putting prices up generally.

[83] To make a comparison with another country, Germany is 40 per cent larger than the UK and yet has 18,000 turbines. We have just over 1,000 or 1,200 turbines, or something like that. So, it is not as though people do not like onshore windfarms, or as though there cannot be a lot more turbines before people say, ‘That is enough’. I think that there is room, but I

take your point about certain areas.

[84] **Mr Edwards:** I will try to take my points in order. On the progress of the targets, I will echo what Neil said. It has been slow. I do not think that anybody now accepts that the 800 MW or the 4 TWh target will be met by 2010. The main constriction, and the big issue now is connectivity to the grid, whether that will be met by using a significant biomass plant in Port Talbot, which is apparently on the starting blocks, or with the large-scale deployment of windfarms. It is a major problem and the reality is that it will just not happen by 2010.

[85] I must confess to not being an expert on the climate change Bill, though I have a colleague who is. If you would like me to, I will talk to him about it to see what his opinion is and let the Chair have that answer. As I understand it, it will give local authorities a lot more strength to insist on microgenerations. It is taking that Merton 10 per cent policy one step further and enshrining it in legislation. That is as far as I understand it, so please do not take that response as gospel; it is only what I think I have heard from my colleague.

[86] On the TAN 8 review, I share your concerns, actually. I think that there was a slight misunderstanding there. It is a review, but it is not a wholesale review. To some extent, I share your concerns about whether TAN 8 was the right way to go, with its strategic areas, but we have it and it is working—or it appears to be working. My main concern on TAN 8 is that it was heavily focused on wind, and I would have liked the review to lean much more towards things like the 10 per cent in the built environment policy. It is a tweak rather than a review, but I would not like to see the whole juggernaut being stopped now for another three or four years. The imperative of increasing renewable energy generation in Wales, the UK and across the world is so strong that we just have to keep going. We can do it better if we look at the policy a few years after it has been put in place.

[87] I will try to be brief on the question of wind energy. There is a technical constraint pertaining to the proximity of offshore turbines, although it is slowly being resolved. It is that you cannot put turbines in very deep water, because the technology is not proven yet. The industry is putting a huge amount of effort into working out ways to put turbines well out in deep water. There are plans afoot for the very large deployment of offshore wind turbines midway between the UK and Denmark, but that is at least 10 years away. The technology limits you to a water depth of between 10m and 15m at present, although the industry is pushing that out all the time. That also applies to onshore turbines. There are technological constraints.

[88] I take your point, and some developers are better than others at working through the environmental impact assessment process. They have a statutory obligation to go through that and work out the balance between minimising the environmental impact as well as the effect on local communities, working around technical constraints to do with siting and ground conditions, and, I have to say it, the economics of it. At the end of the day, it is a commercial enterprise, but it is also a balancing act and I admit that some developers are better at it than others.

[89] The planning system, not only in Wales, does not play the role that it should play, in an ideal world. It is still quite confrontational. There are good examples of where we have worked with the local authority as consultants to undertake the environmental impact assessment, and of where a developer has been amenable and open to changes. We have also worked in circumstances in which we have, effectively, acted as a referee in a boxing match. We try to get it right, but it is not always possible, and it is not always the fault of the developer or the planning authority.

[90] The mid Wales energy agency and the energy agency in Pembroke are seen by many as being impartial. At least people will not be sold something that they do not want. They can

go along to get some information on what to do to improve the energy efficiency of their house, and someone will go around to give them some pointers. No organisation can be impartial, but I meant impartial in the commercial sense; they are not being sold anything.

[91] Could you repeat the question on microgeneration? That is all that I wrote down.

[92] **Alun Cairns:** I just wanted you to comment on how microgeneration can be encouraged. I think that it is an exciting area, because of the sense of ownership that communities and individuals can take from it. Are there direct benefits?

[93] **Mr Edwards:** Yes. Through the planning system and the 10 per cent, there are lots that we could do. Again, it comes down to tweaking TAN 8 because, in most of England, solar water heating and solar photovoltaic panels count as permitted development. That is, you do not need planning permission for them unless you are in a conservation area or a listed building. That is not the case in Wales, and I think that it should be. That would make things easier for people and encourage them. The Welsh Assembly Government should be promoting it more heavily, making it more widely available, and making people aware that grants are available—and the low carbon buildings programme still has money available. Some things are happening with the UK Government and the Department of Trade and Industry that Wales can be a part of. Local authorities, schools and hospitals will be able to apply for support for that sort of microgeneration in public institutions, which, again, will raise awareness on the part of the public.

[94] I am particularly interested in getting the message across through education and in schools. Jonathon Porritt said last night that if you can get renewable energy built into the school environment, it becomes normal for a child, who might then say, 'Dad, why have we not got these things on our house; we have them at school?'. That is a powerful tool, which the National Assembly could pursue. The doors are open and it would be a good avenue to go down.

[95] **Carl Sargeant:** I must say that some of my colleagues do not entirely agree on the windfarm issue, and so I am not sure whether the wind of change really is happening. I totally understand why some of my colleagues support local opposition to this. Mr Cairns has now left the meeting, so he cannot comment, but Mr Cameron is suggesting that we go green and yet Mr Jones in Llandudno is totally opposed to windfarm developments—and I can see why. Politicians and others need to get a grip of what the Stern report says. If we do not make the changes now, in the future, we will all be making our phone calls or discussing this using breathing apparatus or even underwater, so that is an important point. We really need to get to grips with this.

10.10 a.m.

[96] For someone whose constituency and local town has three power stations, I am telling you that we have to realise that windfarms are part of the future; it is just a matter of where they are situated. Part of the problem is the educational value of this, and the mixed messages that we get. We get thrown so much data from Friends of the Earth and other lobbying groups that perhaps people do not fully understand the implications and the benefits of power versus other things. There is a huge opportunity for education to play a part in this. However, people need credible information. I think that they are just lost in this wash of battles between the developers and the supporters of wind power. We need to make sure that people get the right information.

[97] Your comments on planning guidance and the Merton 10 per cent are also valuable on how we could make changes to support that in the National Assembly. What is perhaps more pertinent is the building regulations side of it, because planning is guidance, whereas

building regulations are enforceable. That should be built within those regulations, but we do not yet have those powers. It would be useful to hear any further comments that you may have on that.

[98] Finally, people want to change and be more environmentally friendly, but the reality is that there is a huge cost implication to that. With microgeneration and solar power heating and so on, the tag of £8,000 to £10,000 on someone's property, with a payback over 25 years, is not that attractive. We need to drive down the cost of renewables. Do you have any thoughts on that?

[99] **Mr Crumpton:** I think that you describe awareness and education, particularly on wind energy, very well, with one group saying this and another group saying that. That has happened at the global level with climate change sceptics, and it is very difficult for people who are not involved in the field. In many respects, over the past couple of years, Friends of the Earth has simply not responded to a lot of the anti-windfarm letters in the press. That is because we also have to do other things, but also because we did not know whether it would just create more, as the press would just come back with more again. Although there was a call for a climate change communications programme, my partner at Our World Foundation, Christina Hutchins, was very much trying to develop that with the Welsh Assembly Government, maybe getting a couple of advertisements on the television, similar to the very good recycling advertisements. Had this happened a couple of years ago, that might have progressed the debate. Unfortunately, that did not happen, but the BBC is taking it forward now. Things are changing by the month in awareness and acceptance of the global problem. We are now at the point where we have to start talking about solutions. That is certainly what we are aiming for, rather than simply awareness. I think that other people are doing a lot of the awareness raising and the education side of things, because we are just seen as another half of an argument, as it were.

[100] I will stop there because I think that Rod could probably answer the other questions better.

[101] **Mr Edwards:** There was just one thing that I wrote down, relating to your comments on the Stern report. One of the early documents that came out from the Welsh Assembly Government was 'A Sustainable Wales: Learning to Live Differently'. Is this not just an example of that, of having to learn to live differently?

[102] On education, aside from the energy issue and the energy report, I know that the Assembly is very proactive in working with young people, particularly to do with sustainability issues, because I am involved in youth work outside work, as are my teenage children. I really applaud that. Pro rata, I think that the Assembly is putting a lot more weight on sustainability issues with young people through the formal and non-formal education systems than the UK Government is, comparatively, given the size of the budget and the number of people. It is to be applauded.

[103] On the 10 per cent building regulations in Merton Borough Council, the building regulations come under what used to be the Office of the Deputy Prime Minister. It has changed. As I understand it, at the moment, the Assembly has no powers over the building regulations. However, the building regulations are being tightened up. Part L of the building regulations, which covers renewable energy and energy efficiency in buildings, is going to get stronger year on year. I would like to see it getting much stronger every couple of years, working towards zero-carbon buildings in 10 to 15 years' time. It is possible.

[104] Jonathon Porritt, who spoke at the University of Glamorgan last night, made the point that he had met with one of the big building federations, which said to him that if the Government wanted zero-carbon buildings in 13 years, it could do it.

[105] **Mr Crumpton:** I think that they said by 2013.

[106] **Mr Edwards:** Sorry, by 2013.

[107] **Mr Crumpton:** To clarify, they said, 'You set a date and provide a level playing field; we will respond'. Even they were saying that, and they are generally not supportive of adding extra costs to house building.

[108] **Mr Edwards:** The relationship between the figure of 10 per cent in Merton and part L of the building regulations is that we need them both. This is what is working in parts of the UK where local authorities have adopted the policy that all new build developments will use 10 per cent renewable technology or have a good reason for not doing so. More than 80 local authorities have now adopted that, and it is something that the Assembly can do. It reinforces the building regulations, and that is the point.

[109] On the issue of the cost of renewable technology, I take the point that there is a 25-year payback for photovoltaics, but there is not a 25-year payback for solar water heating. Over the year, you can easily get up to 60 per cent of your domestic water needs—although not central heating—from solar power. The payback, depending on the house and the situation, can be in as little as six or seven years, and the cost of adding it to a new build house is very low. It can be integrated as part of the roof fabric and it adds perhaps only a couple of thousand pounds to the cost, which is not a great deal if we are talking about a new house costing £100,000.

[110] The issue of driving down costs is interesting because it is related to the cost of energy. To illustrate that in an industrial setting, a couple of weeks ago, I visited a major food supplier on the Wrexham industrial estate. It has a huge chilling facility to which chilled food is brought for distribution. It wanted to go down the renewables route; it laughed at PV, which is too expensive, but there is space in that area for a medium-sized wind turbine, which would cover all its onsite energy needs. It has done everything else; it has done everything that it can to reduce energy costs. Climate change has nothing to do with what is driving it. What the company's financial director is really worried about is escalating fossil fuel costs. His board is prepared to put the money in now to pay for the future.

[111] That is the state of mind that we must get everyone into. The problem with renewables, which is a perennial problem, is that you pay now and get the benefit later. With fossil fuels, you get the benefit now, and somebody will have to pay later. We have to turn that around so that people are prepared to pay now for what they will get in future.

[112] **Janet Davies:** On the solar water heating issue, one of the problems is that, if you install an efficient condensing gas boiler, you cannot use the less expensive forms of solar heating, and if you go for one of the more expensive ones, the payback takes a very long time. It seems that there are issues that are fighting against each other. How do you resolve that?

[113] **Mr Edwards:** It is a technical issue. It is something that we and other companies have looked at. It is more expensive to integrate solar water heating with condensing boilers, but it can still be done. The problem is that you have to put in another tank. It is more expensive.

10.20 a.m.

[114] **Janet Davies:** It has a long payback then.

[115] **Mr Edwards:** Yes, because it costs more. There is no technical fix. If you want to do

both, there is no simple answer.

[116] **Alun Ffred Jones:** I was at the Phil Williams memorial lecture given by Jonathon Porritt last night. Do you agree that the Stern review changes the game and the timetable that we are addressing? It seems that if we are talking about a 3 per cent annual reduction in carbon dioxide emissions, then we have to get serious quickly.

[117] In terms of some of the things that have been mentioned this morning, the Welsh Assembly Government has said that it is against nuclear energy; we hear that there is opposition, even among politicians, to windfarms; and marine technology seems to be unproven at the moment or at the Heath Robinson stage. So, there is a question with regard to what we will do, as the timetable gives us 15 or 20 years to change things around.

[118] With reference to wind development, respecting what Leighton Andrews said earlier, if we take the Camddwr scheme and the news that the RAF has withdrawn its objections—and this is perhaps a question to Ron Loveland—why did the Government not press the RAF, because the RAF exclusion zone was used as a reason for not including much of mid Wales in its strategic area? Does the RAF's change of heart change the game? Could we look at some of these other areas, because they are topographically suitable, they are away from conurbations and there are community benefits to this scheme? Is the grid connection a specific problem in mid Wales, or is it the same as elsewhere in Wales?

[119] Neil Crumpton said that targets will be missed. Perhaps it would be interesting to get Ron Loveland to comment on that. If they will be missed, by how much will they be missed?

[120] One of the dirtiest power-generation plants in Wales is in Aberthaw. If the coal mined at the opencast site will be shipped down to it, it will remain as dirty. Is it possible to introduce clean-coal technology into that scheme, which is obviously an old one that cannot be rebuilt from scratch at the moment?

[121] Finally, you commented on what Jonathon Porritt said last night with regard to building regulations, which are obviously not devolved at the moment. Does that point us towards the need to concentrate as much on reducing energy needs and consumption as we do on looking for renewable and green sources of electricity and energy in general, or to concentrate more on reducing such needs?

[122] My last point is for Dr Ron Loveland. There was mention of the Severn barrage—some are in favour of it while others are against it. In your presentation to the Welsh Affairs Committee, you said that you hoped to see the Severn barrage in operation by 2020. How did you reach that conclusion?

[123] **Christine Gwyther:** Ron will come in later. However, Neil and Rod can pick up their questions.

[124] **Mr Edwards:** First, on the Stern report, I agree with you. I was impressed by Jonathon Porritt last night. He put it well; it has to change things. If we do not take it seriously, then there is not much hope for us. On your second point about what we do, which is related to that, your assessment is absolutely correct. Marine technologies are just beyond the prototype stage. They are not readily deployable. Large-scale offshore windfarms are a few years away.

[125] My feeling on this matter is that we have to do what we can now. Sadly, what we can do now is use wind technology because no other technology can deliver the scale of the capacity required. We have other resources in Wales, such as hydropower, but the scale of the capacity is not there. Using wind power is the only way that we will get that scale of capacity

quickly, at the moment, so that we can try to address the 3 per cent annual decrease that is necessary. That work has to start now because it will be saved up and if we do not do it this year, we will have double to do next year, and the situation will just run away from us. We have to use what is available to us and the only thing that is available at the moment, on a large scale, is wind. The second runner that is coming up is biomass because that technology is mature. However, it is still quite difficult to make the economics work.

[126] Dr Loveland will probably be able to give a fuller response on your question on Camddwr. However, the problem of the grid in mid Wales more or less equally applies to Camddwr as it does to the areas further north, except that, being further south, the distance to connect it to the grid is less. I understand that the message from the National Grid company is that if all the connections that it currently has requests for come to fruition, there will not be enough capacity on the interconnector to the UK to connect something as big as Camddwr in south Wales. It is a bit speculative because it has a lot of applications for generation, using both renewables and non-renewables. The message that we have recently had from the company is that if that is connected, the south Wales interconnector will be full. You are building up a grid queue, so it is still a problem; it is as much of a problem for Camddwr as it is for any of the other SSAs in mid Wales. As far as the Ministry of Defence is concerned, it would open up other areas, certainly the area east and south-east of Carno and Llanidloes; theoretically, the technical conditions there are as good for wind as anywhere else in Wales, and, in some respects, they are better.

[127] I will leave clean coal to Neil. Energy efficiency really has to come before you start putting renewables on buildings. I keep coming back to the Merton 10 per cent and the London renewables toolkit, which is a good standard piece of work in the industry about how you assess buildings for renewable energy. The first thing is to ask whether you have done what you can in terms of energy efficiency, before starting to put renewables on a building. That question is asked if you apply for a grant for solar water heating under the low-carbon building programme. You would be asked whether you have loft insulation and secondary or primary double glazing. You will get the grant for solar water heating if you have done the very basic things in terms of energy efficiency. You would also be asked what tank lagging you have. You have to do that before you can get the grant. I completely agree with you that energy efficiency and how we use energy is more important than how we generate it; if you can use less energy, you do not have to generate as much. Those are my comments.

[128] **Mr Crumpton:** In terms of the Stern review and the US elections, I think that the whole global issue is moving in the way that it needs to pretty quickly now. It will be of help in firming up commitments, targets and carbon trading schemes, certainly at a European level and maybe further afield. The price of carbon will play a much bigger role in future economics. There is just one caveat on the Stern review: it was talking about a 550 parts per million target for that 1 per cent, and in terms of the latest scientific concerns about climate change, it looks more likely that you do not really want to go beyond 450 parts per million, and that it is preferable to keep it to 400. Therefore, it might be 2 per cent on global GDP—

10.30 a.m.

[129] **Alun Ffred Jones:** But are you not close to 400 already?

[130] **Mr Crumpton:** We are at about 389—we are getting close. This is why there is so much concern about tipping points, and so on. People say that we have five or 10 years to act, but we are getting close, and things can begin to start falling apart and accelerate out of control if we are not careful. That is, perhaps, why we push the onshore wind agenda, even though some local authorities do not like it; someone has to drive this forward.

[131] So, with that one caveat, I still believe that it is cheap to do. The basic starting point is

always energy efficiency, because it saves you money. It also saves resources and environmental aspects, and we are still not really getting to that. Much more money needs to go into energy efficiency, and the money that you save pays for it.

[132] On the marine current turbines, it is probably the best technology in terms of being ready for market—they are the turbines that are stuck in the sea bed on a monopile, and have two propellers. There are other, Heath-Robinson-types of devices—that is a good description—but I do not believe that there are many in the wave field. However, one or two wave technologies are probably ready to go. A good location for marine current turbines would be off the north coast of Anglesey. That may provide 1 TWh or more; I believe that Anglesey Aluminium uses about 2.5 TWh, so there is some energy security for it there.

[133] On Camddwr, in terms of the grid, it was arguing last night that it would do something different, so it might be worth checking with the developer whether it sees the grid issues as Rod described—I am not sure; it might try to put in its own links or something. The Aberthaw issue is interesting. With clean-coal technology, you can almost bolt on different, better boilers to the schemes—it is called retrofitting; Babcock International Group plc does a lot on this. I do not know whether it is applicable to Aberthaw, or whether it is doing it, or intends to do it. However, it cleans the plant up and it is a big step change in efficiency. We propose that this be done on all power stations that are still around after 2015, by when many of them will have to close.

[134] Therefore, you would need to talk to Aberthaw. Again, on the potential for carbon capture and storage at Aberthaw, the progressive energy gasification scheme at Onllwyn was proposed as carbon capture and storage, which would go out to a saline aquifer in the Irish sea. Ron probably knows much more about its potential than me. However, you could possibly get a good clean-coal scheme out of Aberthaw with carbon capture and storage, and add in some co-firing biomass as well. Therefore, there is potential there, but Aberthaw is rather an odd one.

[135] On the barrage, Rod mentioned the grid capacity to England under the Severn. On the barrage debate, an English Stones barrage was proposed. We said that that might, at some point, be a good flood-defence barrier. This is roughly in the Severn crossings area, so it would be a mile and a half, rather than 10 miles. So, you could have some type of scheme there that is a flood barrier, and possibly a barrage that generates electricity, but it could certainly carry a railway, and, if necessary, it could add in grid capacity as well—if they put some electricity cables across. That is just a thought on the last point.

[136] **Christine Gwyther:** I will bring Ron in now to answer the points that were laid down as a challenge for the Government. If there are any supplementary questions, we can take them now, and we will then go straight into the break.

[137] **Dr Loveland:** How long do we have? Do I have three hours to answer these points?

[138] **Christine Gwyther:** I would prefer it if you did it in 10 minutes.

[139] **Dr Loveland:** All right; it might take 15 minutes, but I will be as quick as I can.

[140] It is clear, and the Stern report has emphasised it, that we need to move to a low-carbon economy. However, that transformation will take time. While we are doing that, we need to ensure that we have energy on a reliable basis, and we will hear from the Confederation of British Industry later about that. We need to ensure that we have energy that is affordable, and we need, as quickly as possible, to move towards low-carbon generation. At the same time, in this committee, we need to take the maximum opportunities with regard to economic development and building up a research base, which we have not studied today.

Against that background of what we have been discussing, I will go through the points in detail.

[141] First, the jury is still out on whether or not we will meet the 4 TWh target. There have been some delays in driving that forward but, as Rod knows, there are many developers expressing a lot of interest in a lot of projects, and we will shortly have the result of the Forestry Commission exercise. We have also been driving forward on the biomass front, and not only on the small biomass front with programmes like the wood energy business scheme, which, once again, I think that Rod would commend.

[142] **Mr Edwards:** Absolutely; I did so in my paper.

[143] **Dr Loveland:** We also have the Western Bio Energy Ltd 10 MW station in Baglan and the Prenergy Power Ltd 350 MW station, which is at the so-called section 36 application stage. So, if that biomass project and some of the windfarms that are in development come through, we may meet the 2010 target.

[144] On planning, and the role of local authorities, you will be aware that the energy review report very much suggested that we needed to look into the planning system, particularly for large projects. We are working with the Department of Trade and Industry and Whitehall on that. You will have seen a consultation document on the streamlining of planning inquiries, but there are other things under way, which were sort of alluded to by the Chancellor of the Exchequer in his response to the Stern report. There will be further developments coming through on the planning system, which I am sure will be a matter of great debate in the National Assembly, particularly with regard to the powers of local authorities.

[145] You also mentioned the Camddwr situation in the context of TAN 8, and I assure you that we pressed the Royal Air Force very hard when we were developing TAN 8, in terms of its attitude to technical training areas. Then, as now, it was an absolute constraint and the RAF did not want to see windfarms in its technical training areas. As you know, TAN 8 was developed on a purely objective basis, and Arup looked at the best sites for Wales against a whole series of objective criteria, with no particular local influences being allowed to influence the selection of the strategic areas.

[146] What has happened since is not that the Ministry of Defence has said that it has lifted its stance on the technical training areas in TAN 8; if you put in a new windfarm application outside the strategic areas and it is in a technical training area, the MOD will object. However, the MOD has said that, if turbines are sited in a particular way in two cases that it has been discussing with developers pre-TAN 8, basically for the last 6 years, it will lift its reservations on the possibility of windfarms. That is what has happened at Camddwr; Camddwr could put a planning application into the system and see what happens. TAN 8 is not absolute; it is guidance.

[147] On the criticisms of the energy efficiency plan, it was a child of its time and things have happened as a result of it. We have boosted the activities of the Carbon Trust in Wales and the home energy efficiency scheme has been boosted. The Welsh Development Agency—and now the Department for Enterprise, Innovation and Networks—is working hard on exemplar projects such as Ely bridge and the CORUS site at Ebbw Vale, in terms of exemplifying the way forward on developments.

10.40 a.m.

[148] There is a lot more interest among local authorities in energy efficiency. In conjunction with the UK Government, we have the low-carbon building programme, which

was referred to earlier, and, as I will expand on shortly, there is the opportunity to do a lot more in schools. However, there is no doubt that, on energy efficiency, particularly against the Stern report, we could and should do more.

[149] With regard to gas terminals, large gas stations, clean coal and so on, no-one in the UK wants the older, dirty, coal-fired power stations that are not fitted to FGD standards to continue. Closing those stations takes capacity out of the system that has to be replaced. In terms of the economic replacement, at the moment, with maximum efficiency to minimise global warming, then gas looks to be the best way forward. Large gas stations are highly efficient. Yes, it would be nice if we were able to use the heat locally, and in one of the projects at Milford Haven, they are negotiating that possibility with one of the oil refineries, but that is only using a fraction of the heat.

[150] With regard to future capture of carbon produced by gas-fired power stations, whether at Baglan, Milford Haven or Deeside, there are several options. On Deeside, as Carl will know, the BHP fields will start to reach the end of their life towards 2014-15, and that will provide an opportunity for storing carbon locally; there is a big study under way for that. In places such as Milford Haven, we believe—and we are still investigating—that there are some saline aquifers out in Cardigan bay, which might provide appropriate storage sites. As I say, we need to look into that.

[151] As far as RWE npower at Aberthaw is concerned, as you know, it has invested a lot of money in FGD, bringing it up to the latest sulphur emission standards, and it is investing heavily in co-firing using biomass. Coal generators, generally, when they shut down their oldest and dirtiest stations, as they must under the last combustion plant directive, are currently looking in the first instance at bringing the new supercritical boilers, possibly CCS, into operation.

[152] In terms of the project that you mentioned at Teesside, Neil, that is not a section 36 application; that is Centrica taking up an option to participate in the Progressive Energy Ltd project, which is still at the concept stage. That is a sad story in itself, because Progressive Energy originally was going to do this project at Onllwyn, but Neath Port Talbot objected, and Progressive Energy looked elsewhere, and is now looking at Teesside.

[153] Finally, Neil, on your points and those that came up subsequently on planning and the role of local authorities, as some of you will be aware, Carwyn Jones made a statement last week at the climate change conference in which he stated that he will be issuing a MIPPS, directing local authorities—

[154] **Christine Gwyther:** What is MIPPS?

[155] **Dr Loveland:** A ministerial interim planning policy statement. We look forward to that. We will be issuing a microgeneration action plan, and you have seen the earlier consultation document, and that will cover things like schools following what Sir Jonathon Porritt said last night. I emphasise the fact—it has not been mentioned yet—that, in terms of photovoltaic technology, the major operation at Sharp in Wrexham is being expanded and there is the G24i project that the Minister launched one or two weeks ago.

[156] On your points, Rod, as for having another look at our energy policy, we have issued the energy route-map for consultation, and we are in the process of revising that against the energy review, the Stern report and all our discussions with the DTI. For those of you who are interested, there are already four consultations on the books at a UK level, in which we have been participating. One consultation is on streamlining the planning system, and another consultation came up last week on district heating. There is another consultation on banding the renewables obligation. The fourth consultation is on distributed generation. So, we will

revise the energy route-map in the context of all those deliberations.

[157] We have discussed the TAN 8 situation. As far as the supplementary planning guidance is concerned, the Assembly formally does not have a locus, but I have looked at the SPG consultations and, as far as I can see, they all say that if the SPG process inhibits the achievement of the targets within the strategic areas, they will revisit what they are doing. However, it would be nice if the SPG process were just a refinement and not too dramatic, and if it came to fruition sooner rather than later.

[158] The grid is a fascinating technical subject, and Wales splits into two—north and south, with mid Wales linked to north Wales. We are working with NGT on the mid Wales situation. We and BWE have come to an accommodation with NGT, and we hope that a study will shortly be underway to look at the various solutions to improve the grid in Wales, which will enable the system to be strengthened in general and for the renewable energy projects to go through. However, there are strategic areas such as Denbighshire where we can develop without strengthening the grid. In south Wales, we have a speculative situation, as has been mentioned. At the moment, we have Aberthaw, the GE plant at Baglan and a couple of small stations, including Uskmouth, but are net importer of electricity across the England and Wales interconnectors, of which there are three—at the Severn, Usk and Ross. Given our success in attracting projects, we will, hopefully, soon move to being a net exporter. There is a limit to how much can be exported across the England and Wales interconnectors at the Severn, and so on, without reinforcement. We are in discussion with NGT about the situation, but it is speculative. The situation is that if Uskmouth and one of the Milford Haven proposals come through, there is still plenty of room for other projects. The problem arises if there are two major 2 GW stations at Milford Haven—that appears to take the grid to the limit. As I say, we are in discussion with NGT about that. It is also complicated by the possibility of interconnectors in north and south Wales to Ireland, which could also alleviate the situation. So, ‘speculative’ is the most appropriate adjective for the description.

[159] **Christine Gwyther:** What is the timescale for those types of decisions?

[160] **Dr Loveland:** A lot depends on the developers of the power stations. We have a system whereby if they come forward and put some money to NGT as an upfront fee, they are first on the list. So, a lot depends on how fast the developers come to their final decisions and we move through the planning system. The interconnector could be built quite quickly, but that is to be seen.

10.50 a.m.

[161] On independent energy agencies, we very much need a strong advice network in Wales in respect of both energy efficiency and microgeneration. We have the energy agencies, apart from in mid Wales, but we also have very professional organisations such as the Carbon Trust, the Energy Saving Trust and the Building Research Establishment. We need to find, and are looking for, a way forward in which all the parties work closely together to provide a strong and effective advice network.

[162] In terms of your point, Rod, about more robust presentation of WAG policies and not using what I think you implied were weasel words, we are limited by what we can say formally, because of our legal powers. We try to use the strongest words that we can in formal documents, but we are limited. However, what we are doing behind the scenes is a lot more active than those words perhaps imply.

[163] On your final point about a wide-ranging education campaign, as Jonathon Porritt was saying last night, we clearly need to have one. Neil, you mentioned the BBC as driving forward on this, and B SkyB is also taking up the cudgel. We are looking carefully at the way

forward under the climate change umbrella, because that is the sensible way forward.

[164] On the Severn barrage, as you are aware, we are working with the Sustainable Development Commission to look at the Severn barrage and marine technologies generally. Picking up a couple of your points, Neil, in terms of the 8 GW pulses, we are told by NGT that, since their timing is predictable, it will be possible to deal with them. You mentioned the comparative costs of carbon capture and storage and far-offshore wind. If you look at the comparative costs at the moment, they look similar, but the Assembly Government policy is clear: we think that the possibility should be studied, but we are not saying that the barrage should be built.

[165] I will take up another point in respect of what you said, Alun, about timescale, and the point that you made in your paper, Neil, about discount rates. One of the things that people have not realised in respect of the Stern report is that it has clearly demonstrated that, as far as carbon savings are concerned, we need to look at low discount rates. To digress briefly, we are all aware of the system for the normal economic examination of projects, where you look at net present value, so if you have a cost or benefit that is a long time in the future, its net present value is zero. So, we have an interesting situation where people say, 'You have a nuclear power station being decommissioned in 50 years' time, and, although it will cost billions, it doesn't actually show up on the balance sheet at the moment'. However, you cannot use that if you are talking about saving carbon, because from the climate change and global warming perspective, it does not matter where or when carbon is emitted. So, if you think about a tonne of carbon being emitted either now or in the future, that tonne of carbon will either have an equal effect, or, if you are nearer the tipping point, a greater effect. The only way to deal with that on an economic front is to use a low discount rate. Stern very much makes that point.

[166] That takes me on to the carbon emissions targets. Carbon emissions have risen in Wales, because Aberthaw has been burning to keep the lights on and we have had some successes with our steel industry. It is important that we look at carbon emissions in a global context and in terms of how our policies will have an impact on carbon emissions in a UK, if not a global, context. So, if we have gas stations built in Wales that displace older coal-fired power stations in England, it will minimise carbon emissions at the UK level, although, at a purely parochial level, it appears to increase our emissions.

[167] The final point is in regard to Anglesey Aluminium. We, and Ministers, have pressed hard to see whether we can extend the life of Wylfa. Neither the Nuclear Decommissioning Authority nor the Secretary of State for Trade and Industry has said that that is possible, so we are looking at a closure of Wylfa in 2010 or 2011. That means that we need to find a suitable source of affordable electricity for Anglesey Aluminium to continue in that sort of timeframe. We are working with it on various options, including a biomass option, and it would be wonderful if marine technologies could be fully developed in that timescale. That just does not look possible. We are working hard with companies such as Marine Current Turbines, Wave Dragon and others but it will take time to build up marine energy to the level of security and capacity that would enable us to supply a plant such as Anglesey Aluminium.

[168] **Christine Gwyther:** Are there any questions on Ron's contribution?

[169] **Alun Cairns:** I do not necessarily want to prolong this too much, but I was surprised by Dr Loveland's comments that the jury was out as to whether the Assembly Government will achieve the 4 TWh target by 2010. He also said that we may meet the target if some projects that he quoted come through. I do not necessarily need a full answer now, but it would be useful if we could get an answer on paper as to what projects need to go through in order to achieve that target.

[170] **Dr Loveland:** Much of that information is commercially in confidence.

[171] **Christine Gwyther:** I thought that you would say that.

[172] **Janet Davies:** One thing that we have not mentioned today is carbon emissions from transport. In terms of the next round of structural funds, with regard to the European regional development fund, back in January this year, increased efficiency and the promotion of clean urban transport were being talked about as explicit targets. I am not sure whether that has changed. Things have changed a lot in terms of structural funds over the months. Is that still there?

[173] Perhaps we could have a note on the whole issue of deep-mined coal and how it will be exploited. There are issues in terms of the feasibility study that is under way by Corus at Margam, but there is also the issue of underground coal gasification. I understand that you need seams of about 3m thick to be able to do that efficiently and that we might only have 10 per cent of the suitable seams that are in Yorkshire and Derbyshire. How does that fit in with methane extraction from coalfields? Is methane extraction possible from seams that not as wide? Could we have a note on that some time? To go into it now is not practical.

[174] As the Minister is here now, and he was not here when I said this before, I ask him whether he can give us an assurance that he is approaching the Severn barrage with a very open mind and that all the issues will be fully studied and reported on.

[175] **Christine Gwyther:** I would be surprised if he did not do that, but perhaps you could put that on the record, Minister.

[176] **Andrew Davies:** Yes. We have been very clear that we can see the huge potential of the Severn tidal barrage, but we are very aware of the environmental issues that it raises. That is why we have pressed the UK Government, as part of the energy review, for a study of this and why the Sustainable Development Commission has been commissioned to consider the potential for tidal energy production, which includes the Severn tidal barrage and other methods, such as tidal lagoons and tidal streams. We are more than happy to give that assurance. Ultimately, it would not be down to us as a Government anyway, given the size of the development in terms of planning; it would involve the DTI, and not only the Welsh context, but across the water. There are also significant environmental issues to be addressed because of the European environmental legislation.

11.00 a.m.

[177] On the European funding, green transport and reducing the carbon footprint of that transport is still very much at the top of our agenda. The whole thrust of the Wales transport strategy is to get a modal shift towards more sustainable forms of transport, hence our commitment to public transport, encouraging the rail industry, for example, to use more environmentally friendly forms of energy proportion. For example, First Great Western, in upgrading the high-speed train fleet, will install far more energy-efficient and less polluting forms of diesel engines, and will work with Arriva Trains Wales on that. My deputy, Tamsin Dunwoody, is now undertaking a study on taking forward the use of more sustainable or greener fuels and biofuels, and that is an important piece of work.

[178] **Janet Davies:** There might be European money to help with that, where appropriate.

[179] Will we get the note on coal?

[180] **Christine Gwyther:** Yes, I think that that was noted. I could see someone scribbling away. Ffred wanted to ask a question.

[181] **Alun Ffred Jones:** No, that is fine.

[182] **Christine Gwyther:** Okay. Thank you to Rod and Neil for their valuable input this morning, which has set us off on a few new courses of scrutiny inquiry, which are very useful. We will now break for 15 minutes.

*Gohiriwyd y cyfarfod rhwng 11.02 a.m. ac 11.28 a.m.
The meeting adjourned between 11.02 a.m. and 11.28 a.m.*

**Polisi Ynni yng Nghymru: CBI Cymru a Dow Corning
Energy Policy in Wales: CBI Wales and Dow Corning**

[183] **Christine Gwyther:** The next item on the agenda is a continuation of the discussion that we have had so far this morning. We have three new witnesses: Emma Watkins, head of policy at CBI Wales, Mark Tyso, energy reduction co-ordinator for Dow Corning, and Dave Proctor, the energy and strategic contracts manager for Dow Corning.

[184] **Mr Proctor:** Yes, although it is a slightly changed job.

[185] **Christine Gwyther:** I invite you to do a very brief presentation, and then we will move straight into Members' questions, if you are happy to answer anything that we have to ask you.

[186] **Ms Watkins:** Thanks for the opportunity to talk to the committee today about what is one of the key issues facing industry at the moment. I will speak for just a couple of minutes on some general points about energy and energy efficiency, and then I will hand over to Dave and Mark, who will give a direct company perspective on what they are doing in terms of energy consumption and energy efficiency measures. They will try to relate that back to the work that the committee has done in the past. They are the main presenters, as they have far more expertise and experience in this area, so I will defer to them where necessary.

[187] I apologise for not submitting a paper to the committee today, but let me know if you want to follow up anything that we raise. Dave and Mark have copies of their presentation for you.

[188] As you are aware, energy is one of the top two issues affecting companies today in the UK, pensions being the other. It is very hard to have a conversation with a business anywhere in Wales these days that does not involve energy in some way or another, whether that is in terms of energy costs, availability, the security of supply or energy efficiency. Given that, the CBI has been lobbying very actively on energy policy over the past 12 months in Wales and the UK and at an EU level. We have responded to many consultations on energy, including Energy Wales's and the Department of Trade and Industry's energy review. The director general of the CBI co-chairs the business energy forum alongside Alistair Darling. On Tuesday, energy was the main topic for discussion at the CBI's environment committee in Wales, so it is very hard for us to get away from this issue. That is why we are pleased to have been given the chance to come here to talk about it today.

11.30 a.m.

[189] The arguments around energy supply, cost, availability, security and so on have been well rehearsed, so I will not go into those today. We are all too familiar with many of the issues facing companies such as Anglesey Aluminium Metal Ltd and others. I will focus my comments on energy efficiency, because that is what you want to discuss. We think that it is

the area where Government and industry together can probably make the most practical progress. The CBI fully endorses the need for all sectors of society to increase energy efficiency as part of reducing demand for power and to reduce the effects of climate change. So, we did support the objectives of the committee's energy efficiency review, and we responded to the consultation.

[190] We highlight the huge efforts already made by industry to improve energy efficiency. Indeed, business itself is already on track to deliver the UK's Kyoto commitments. No other sector of society has contributed so meaningfully. We need to remember, particularly in today's debate, that business accounts for one third of energy usage, households for one third and transport for another third. Many companies throughout Wales have introduced energy efficiency measures, particularly in heavy industry such as manufacturing—and there are many such companies in Wales. As you will hear from Dow Corning in a moment, many have been implementing these measures for more than 15 years.

[191] Many companies have gone as far as is feasible in reducing their energy consumption, in terms of financial costs and the technologies available to them. I can give you an example of this: a company called UPM-Kymmene Group, also known as Shotton Paper, based in Deeside, has reduced its energy consumption from 3 MWh per tonne of paper produced to 1 MWh per tonne, at a total investment cost of £150 million. Any future investment will yield reducing incremental improvements and the company will not really recover the investment. So, it has gone as far as it possibly can.

[192] Some of the measures that the industry has introduced will comply with the recommendations of the committee, and, in that sense, it has supported the Assembly in meeting the recommendations. However, it would probably be unrealistic to assume that the measures have been introduced as a direct result of what the Assembly recommended. Rather, as you will hear in a moment, they were introduced because of a need to improve the bottom line and cut costs, and as part of a general commitment to corporate social responsibility. However, if the industry has moved towards meeting the recommendations, that should be commended.

[193] As I mentioned earlier, it is worth pointing out that any further steps by Government to focus energy efficiency improvements on industry would be unlikely to achieve significant extra results, because of the reductions already achieved. Unfortunately, many of the incentives for businesses to improve energy efficiency adopt a stick rather than a carrot approach, and that needs to be addressed. The CBI also believes that Government now needs to turn its attention to the public sector, to transport and to domestic energy efficiency. It also needs to look to the commercial sectors and to supporting small and medium-sized enterprises in their drive to become more energy efficient. In recent years, there has been a proliferation of measures aimed at achieving proposed emissions reductions among larger businesses, and the energy intensive sector in particular. However, Government policy for the commercial and SME sectors is less well articulated and promoted. Given that we have so many of those companies in Wales, we recommend that more attention now be paid to them.

[194] Before I hand over to Dave, I wish to refer to the work of the public and private sector energy and resource efficiency agencies. I understand that the Treasury is looking into the performance of these agencies. The CBI has collected a great deal of anecdotal evidence from members about their dealings with the agencies. Many of the comments focus on the Carbon Trust. The majority of member companies have received advice or support from the Carbon Trust, whether in the form of general or company-specific advice, or enhanced capital allowances. More companies report using the Carbon Trust than the Energy Saving Trust. To be fair, we receive pretty positive feedback from companies in this area.

[195] The CBI as an organisation engages with the Carbon Trust at a Wales and UK level,

meeting with officers from the organisation, and the Carbon Trust is going to attend our next Wales environment committee to talk about climate change. Individual members—such as Meritor in Cwmbran, which produces heavy vehicle braking systems—also engage with the Carbon Trust. That company has produced a programme for reducing its energy consumption alongside the Carbon Trust. It is making savings of £200 per month, through the introduction of a variable speed drive, which has already paid for itself.

[196] Any concerns that members have expressed about energy advice agencies tend to relate to the level of financial support that they can offer in practice, the lack of technical or subject-specific expertise and, unsurprisingly, the amount of bureaucracy involved in the applications process. However, we believe that they are heading in the right direction.

[197] I would like to mention briefly the activities of the ARENA network. Although it is not specifically an energy advice agency, CBI Wales members have a high regard for its activities. Given that it provides a lot of advice and encouragement to small and medium-sized enterprises in Wales, perhaps we could look to engage more with it on this. We would encourage the Assembly to continue to support these agencies and their work in Wales, especially with regard to small and medium-sized enterprises and their drive to become more energy efficient. That is a brief introduction from me. I will hand over to Dave, who will take you through the company issues.

[198] **Mr Proctor:** We have copies of our presentation; I hope that we have enough. I will distribute these quickly. We want to give you some background on Dow Corning and how we have reduced our energy use and greenhouse gas emissions and to talk a little about drivers and barriers. I would then like to talk, as Emma said, about how we think the Assembly and the committee can support future efforts.

[199] I will start by giving you some background on Dow Corning. We are based in Barry in the UK. It is a global company that is a 50:50 venture between Dow Chemicals and Corning, which used to be Corning Glass, but it is now into advanced materials and fibres. The company has more than 7,000 products and 20,000 customers worldwide and it made nearly \$4 billion from global sales in 2005. We employ around 600 people at the 130-acre Cardiff Road site in Barry. It is Dow Corning's only manufacturing site in the UK. We have a high demand for both heat, in the form of steam, and electricity. That is supplied by an on-site combined heat and power plant, which is gas fired. It is a dedicated facility owned and operated by RWE, which was installed in the late 1990s during our last major expansion. We also use natural gas as part of our manufacturing process. To put this in context, we use roughly the same amount of natural gas as a town the size of Barry does. So, it is a fairly significant volume and it carries a significant cost.

[200] In the copy of the presentation you will see a nice little picture of Barry. Dow Corning occupies the central part shown in this photograph, including the land down to Barry docks. We have operated there for over 50 years—since the middle of the war—in various guises.

[201] In terms of the drivers for energy efficiency, we have looked at the issue at a corporate level for many years. Dow Corning has seven key values, which are listed across the top of the page. I have circled those to which we think energy efficiency will contribute: integrity; involving employees both at home and at work; customers; technology, because we are a chemical company and we are technology driven to some extent; and a key contributing factor, as Emma said, is corporate responsibility, or, as we call it, sustainability. So, for us, energy efficiency fits clearly into the three pillars of sustainability: social sustainability, being a good neighbour, and minimising our impact on the environment. At a corporate level, we have a report that details energy use at all of our manufacturing sites since 1990 and the greenhouse gas emissions from those sites since 1996. That covers all 35 manufacturing sites

around the world. We are ISO 14001 registered and we fall under the integrated pollution control system.

[202] In terms of the economic leg of the sustainability tripod, energy is our largest single fixed-cost item—it costs more than salaries, wages and benefits. That has increased significantly in the last few years. Energy costs are rising and we compete in global markets. We are an American company; we have facilities in America and we also compete with people in Asia, Europe and other parts of the world. The other part of energy costs concerns the uncertainty of future pricing levels and volatility. I will not go into that in detail because I am sure that the committee is very familiar with those issues and their impact on businesses.

11.40 a.m.

[203] On the handout, the other element under the heading 'Economic' that also falls under the heading 'Environmental' is carbon dioxide emissions. We obviously fall under the UK's climate change levy and we will fall under the EU emissions trading scheme. We feel that combined heat and power has been disadvantaged in terms of the UK's phase 2 national allocation plan. There is also a cost element to the fact that we all have to buy carbon dioxide emission permits. Those issues fit under the headings 'Environmental' and 'Economic'.

[204] I will now hand over to Mark, who will take us through what we have been doing in terms of strategy, and he will give some of our results in terms of energy efficiency. I will come back with a few summary comments at the end.

[205] **Mr Tyso:** In terms of our energy reduction strategy, we start right at the beginning. Whenever we put new projects in, we try to use the best available technology or economic technology of the time. That goes back to when we had our major site expansion. We put in a combined heat and power unit, which at the time was the most efficient way of producing both our heat and our power—that is still the case.

[206] In all of our capital decisions, we consider energy and carbon dioxide emissions within the economic justifications. We do not look purely at the economics; we look at the total package. We also try to run our plants at their best operating efficiency, so we have quite extensive monitoring and reporting of all processes so that we operate at the best portions of the operating curves as possible. Also, within the Dow Corning site in Barry, we have a lot of internal communication—quarterly environmental newsletters and notice boards, for example—to try to display how we are doing and to involve employees in terms of what they can do to improve energy efficiency.

[207] As Dave and Emma mentioned earlier, we work quite extensively with the Carbon Trust. We have a strong partnership with the trust as we have worked with it since its inception in Wales. I will give just a couple of highlights from that work. We have done a heat integration study with the trust to define where we can go to be the most efficient that we possibly can be in the future and to define what that most efficient point is. We also hosted an energy awareness event, which was attended by some people from the Welsh Assembly Government, to provide training on how to conduct an energy awareness campaign. That was for national and local government and large and medium-sized energy consumers. We did that about three weeks ago.

[208] I will give a couple of highlights in terms of what the Barry site has achieved to date. If you look from the baseline of 1998, in terms of primary energy, our carbon dioxide emissions per tonne of product have fallen by 50 per cent. To put that into terms that we can all understand, if we were operating at the same level of efficiency as we were in 1998 for the production level that we have now, the reduction would be equivalent to having enough energy to heat and light 45,000 homes. That is quite a significant saving. As I said, we try to

operate our plants at the most efficient level possible and we minimise recycle times—namely the times when we cannot feed forward to make products, so the plants tend to go on recycle and send the products back to the start again. We have tried to reduce all that. That is one of our most energy-intensive steps and we have reduced that recycle time right down, which has saved us the equivalent of enough energy to provide heat, light and power for 1,000 homes per year. We are taking steps forward there.

[209] On the heat integration study with the Carbon Trust, which I talked about, we have defined a five-year capital plan to reduce our heat further. That could potentially save us 5,000 tonnes of carbon dioxide per year.

[210] On what restraining forces there are against energy efficiency, reliability of energy supply is crucial to us. The Barry site is a fully integrated, world-class, continuous-operation chemical site. We run 365 days a year, 24 hours a day. If we have even a momentary loss of heat or steam, for a dip of two or three minutes, that means that the whole site is down for about three days while we try to get it up and running again.

[211] We also have some long-term energy price and regulatory uncertainty. In terms of our future decisions, even if we said today that we wanted to put in a project of a reasonable size, the lead time to purchase that material, to design it, and to put it in is about two to three years. Consequently, as you can imagine, with each project taking two to three years from inception to completion, we basically have a five-to-10-year investment planning time frame. Also, as I said, the site runs 24/7, 365 days a year, so we only have shutdowns roughly every three years. Therefore, the window to implement these capital upgrades comes only once every three years, so it is important that we get our planning right, and it takes that length of time.

[212] The next slide shows that we have now reduced our energy consumption to quite a low level. With our current combined heat and power plant, we are pretty much at the minimum turndown—the lowest heat production that it can reliably run at to give us a reliable heat source. If we go any further, we jeopardise the reliability of the combined heat and power plant, and the plant also becomes increasingly less efficient, so we do not save the pro-rata carbon emissions that you would necessarily think if we take our heat loads further.

[213] This next slide shows that we have quantified all the different projects as we lead forward in terms of what we think we could do to reduce our carbon dioxide per tonne of production. However, you can see that there is a line at the bottom, which is the limit to which the combined heat and power plant can turn down to. We have implemented the first few projects that you see there, but we have hit that limit now—we are at the limit of the reliable operation of the combined heat and power plant.

[214] At this point, I will hand back to Dave, who will talk about renewables.

[215] **Christine Gwyther:** Okay; thanks, Mark.

[216] **Mr Proctor:** We thought that we should make some comments on renewable energy. As we said, we already have the most efficient way of generating our power and heat requirements from the CHP plant. At a global, corporate level, a colleague in the US and I are doing an evaluation of each major manufacturing site, looking primarily at opportunities for wind, solar and biomass projects. We have an operation in Germany, which is going ahead with a large solar panel project, and we have a manufacturing facility in Belgium, which is going ahead with a wind turbine project. At the Barry site, we are in the early stages of looking at a potential wind turbine. Despite having the CHP plant, we import a small amount of electricity, so we are potentially looking at a 2 MW wind turbine, which would produce about 3 per cent of our site power needs, and displace about 2,000 tonnes a year of carbon dioxide emissions.

[217] As we are at the early stage, and, as you see from the site photograph, we are closely surrounded by neighbours, we have put this concept before our community advisory panel; that is a group of local people who come in once a quarter, with whom we talk about the site plans and activities on the site. We probably got a reaction from about half the members, and the reaction that we got on this was negative—the other half of the panel members did not make any comment. We had comments such as, ‘We will see a flicker’, ‘It will create noise’, ‘It will devalue our homes’—the sort of reaction that we expected to get. We tried to explain the environmental benefits and why we were interested in doing this. One comment was, ‘Well, if it is only 3 per cent of your site power needs, why bother?’. We were rather disappointed by such a negative reaction in the community to what we believe is a good project, which is just about economically viable but which has good environmental impact. We were disappointed with that community response.

11.50 a.m.

[218] In terms of looking at renewable heat, we have the combined heat and power plant, but if you look at the pie chart, roughly 40 per cent of our site energy costs are related to heat—steam. So, we have started to look at whether there is any way in which we can turn off parts of the CHP and do some kind of renewable heat project. By and large, the focus so far, in most projects in the general market, has been on power generation and not heat generation.

[219] There are questions around fuel availability. In order to supply all our heat, we think that we would need 35 to 40 lorry loads of wood pellets per day. In terms of looking at the overall environmental impact, that, at the moment, does not seem a practical or viable alternative, and, as I say, we already have the CHP plant. We are trying to be creative around looking at other types of projects. We have the Cadoxton stream, which is small, but someone asked whether we could put a little turbine in that; but it is kind of a trickle by comparison. That is what we are doing.

[220] We want to comment on what we have called energy legislation. As a large consumer, relative to other sites in the corporation globally, we feel that the UK legislative emphasis is on taxation and the big-stick approach. That means taxing industry energy users rather than looking at incentives, partnerships and creative ways of finding other ways to reduce energy consumption. As Emma said, we feel that industry has been targeted but, if you look at the overall energy consumption in the UK, the domestic, transportation and commercial sectors are significant sectors, which, at the moment, do not seem to be largely captured by legislation.

[221] At the bottom of the page, we list a few of the various legislation and consultations that we have either seen or are involved in in terms of making comments. Those include the integrated pollution prevention and control energy reviews, renewable obligation, the Stern review on climate change, and EU heat obligations. There are many pieces of legislation going on, and trying to keep track of the ones that really impact on us takes a lot of my time. I do not know what happened to the UK’s plan for simplifying and combining legislation, because it does not feel as if the legislative burden is getting any simpler.

[222] The last slide comments, as Emma said, on some of the work that the National Assembly has been doing. Our industry is specific in terms of technology and I think that we feel that, well intended as it is, most of the publications and information are currently too generic to help us to reduce energy consumption. Lighting is not even 0.5 or 1 per cent of our site power needs, and in terms of the focus on the lighting, we have done all that, but it will not really give us any significant savings. Where we see the Assembly as having a major role, which I know that you are increasingly focusing on, is in terms of what are called hearts and minds demonstration projects that include planning, education and engendering public

support for wind and renewable projects. That goes back to my comment about the community panel being largely favourable. You may think that you have a good project, but the word is not really reaching some people in the community.

[223] My last comment is on Carbon Trust Wales. We have had a partnership with the trust for three and a half years. It gives us good support within its remit and it provides a good conduit to specialist external resource. However, it is our understanding that its funding is not related to the size of the energy use in the companies that it works with, which we think hampers its role somewhat. So, state aid always becomes an issue. Although we are a large consumer, we cannot have more access to its resources, as there appears to be a cap on what it can do, even though we think that it would like to do more.

[224] That concludes our formal presentation. I do not know whether you have any other comments, Emma, on behalf of CBI.

[225] **Ms Watkins:** I think that that is fine.

[226] **Christine Gwyther:** Thank you. We will now have questions from Members.

[227] **Alun Cairns:** Thank you. Your contributions have been extremely informative and interesting. There is no doubt that Dow Corning is leading the way in terms of energy efficiency and it could be described as a model example of how many other organisations should approach climate change. Can you tell me about your driving factors in terms of your investment? I want to pick up on your comment about wind turbines with regard to economics, applying that criterion to all your other investments. Are the economics the driving factor behind those investments, and have they all been economic up to now, or are you doing it as a good neighbour as well as in terms of playing a part in global climate-change requirements?

[228] **Mr Proctor:** If we are looking at a wind turbine project, the economics are marginal at best.

[229] **Alun Cairns:** That is right, but does that statement apply to every other investment that you have made? Have they been economic? Is there an example of Dow Corning having done something that has saved it money and improved the environment?

[230] **Mr Proctor:** They have largely been economic, and we are now at the stage of investing in projects that are not purely economic, because of their environmental impact or because they are demonstration projects. Obviously, customers are starting to be interested in companies' energy polices and energy efficiencies. We are currently starting investments—not at Barry, but at another site—that are negative or would not cross the economic threshold.

[231] **Alun Cairns:** That is what I wanted to get at. Obviously, yours is an American company, and, as a nation, the American attitude is not necessarily as positive to climate change as that of some other nations. In your introduction, you also mentioned your European, far eastern and other competitors. When we get into the position where the changes are not economic, do you find that the drive to make further improvements is, potentially, hampering you in the face of those competitors? What changes would you like to see in terms of encouraging or facilitating you in making those improvements? I am a much bigger fan of incentives than I am of using the big stick that you quoted in your example.

[232] **Mr Proctor:** First, we are an American corporation that has, in the US, signed up to the Chicago climate exchange, which is a kind of voluntary emissions trading scheme, and we have binding greenhouse gas reduction targets under that scheme. So, although the company is an American one, we do try to take a level approach across all the sectors and areas in

which we work and apply the same standards globally. We will not do anything differently in Asia to what we are doing in the US or the UK.

[233] Secondly, for some of the projects that we are looking at—in the US, as well—we are factoring in the longer-term cost of greenhouse gases or carbon dioxide. In terms of investment projects, they largely have to stack up globally; we are competing for global capital.

[234] The issue is really that there has been some bad press and some bad feeling within the company that for some of our improvements, we have not actually realised the long-term benefits and savings, because when new schemes such as the EU emissions trading scheme are introduced, they often start from a baseline that does not reflect and reward early action. That is a bit of a break on the fact that we are trying to be proactive and ahead of the game. There is an issue whereby, if you are proactive and do the right thing now, you may not get the long-term benefit or long-term certainty.

[235] **Janet Davies:** This is a question for you, Emma, because you have produced a pretty convincing case for how much you are doing in terms of energy efficiency. To what extent are other large companies in Wales following this route? If they are not, do you think that you have a role in persuading them about the economic case for much of this, and that they can remain competitive—at least, I hope that they can?

[236] **Ms Watkins:** To be fair, many of the larger companies have been going down this route for a while now, and largely for economic reasons, because of the bottom line—it is a way of reducing costs. I referred to Shotton Paper, and we know that Anglesey Aluminium Metal Ltd has introduced such measures. There is also Meritor in Cwmbran, and Boots has introduced a lot of measures in its stores. So, there is some work going on in that sector. Many companies are also doing it because they cannot afford not to be seen as an environmentally supportive company in today's environment.

12.00 p.m.

[237] They do it because of the corporate social responsibility agenda, but I think that the CBI has a role to play, as an organisation, in promoting energy efficiency among our members. That is why we have committees such as our environment committee, namely so that our members can listen to the work of Dow Corning, for instance, and learn from what it is doing and share that best practice among each other. We have a role to play in spreading that best practice from the bigger companies down to the SME-level companies, where perhaps you do not get such buy-in or see immediate benefits.

[238] **Janet Davies:** How about Corus and steel production? What sort of reaction have you had from there? I do not know how much energy Corus uses, but it must be an enormous amount.

[239] **Ms Watkins:** I have not had direct conversations with Corus. I know that Corus now has energy managers, as do many of our companies throughout their different sites. It has certain sectors within the company that just look at this issue. I know that Corus wants to do more work with the Carbon Trust, but, because of the limits that Dave referred to in terms of the amount of help that the Carbon Trust can give, it is less possible for it to do that. Companies cannot afford not to become more energy efficient these days.

[240] **Leighton Andrews:** I have a few quick questions. I appreciate what you say about Assembly Government material being too generic for your industry, but, in practice, that is going to be true of any industry—it will have to be on a generic level. Is it right to say that the chemical industries, because of the climate change levy going back seven or eight years, have

been challenged on their energy efficiency and consumption for some time? You have made it quite a big part of what you are doing, but it may not have been such an imperative for companies in other sectors that are not such obviously large energy consumers as you are. Is it your observation that the increased cost of energy over the last few years is driving more companies to look more seriously at energy efficiency?

[241] **Mr Proctor:** I come from the chemical sector, so perhaps Emma will comment more generally. For a long time, many chemical companies have been signing-up to things like responsible care programmes, which is a US thing, looking at overall environmental impact management. A large part of that is the economic element, but because of the regulatory nature, and the nature of some chemical processes, the chemical industry must do it well and get it right across the board on environmental performance, of which energy use is a part. It is a global industry, so economics plays a very large part in global competition. I sit on the Chemical Industries Association's energy and utilities committee, for example, and we do a lot of best-practice sharing there. I find it hard to comment on industry in general, so I will pass over to Emma, but I think that the industry, in general, has been promoting and doing this for a long time. As we are technology-driven, it is more second nature to the chemical industry. Do you wish to comment on other sectors, Emma?

[242] **Ms Watkins:** The sectors that have been more energy-intensive have introduced measures much sooner, because they have had to. With some of the recent increases that we have seen, we talk to an increasing number of companies that are introducing these measures, even companies such as law firms and commercial firms, which are encouraging their staff to become more energy-efficient in terms of printing and things like that, which is a small element. Necessity has meant that it has been the larger, energy-intensive companies that have initially introduced the measures.

[243] **Alun Ffred Jones:** Has the intention to put up a wind turbine met with negative reaction locally?

[244] **Mr Proctor:** The people who responded were those who were vocally against it. Many people did not say anything, which perhaps says that they are not strongly for or against it, but they did not stand up to say that they thought that it was good.

[245] **Alun Ffred Jones:** You did not get any support from the local authority, because it would be in a difficult position—

[246] **Mr Proctor:** The position that we took, as we thought that it could be a contentious project, was to float it through the community panel with the local neighbours, rather than go in and talk to the planning authority. So, we are at the stage where we have got that reaction, and we will move forward and collect some more data to justify the economics. We will then start to talk around the planning side with local authorities, which is very much a soft-step approach to see what the neighbours think, rather than springing it on them and having them say, 'What's this planning application for a wind turbine? You never told us about it'. However, the chairperson of the panel, who is a local resident, but who was impartial—she was the recorder and the chairperson—came along afterwards and said that she supported the fact that we were looking at such projects and trying to be proactive and that she was disappointed that some members had not stood up and said, 'Well, we think it's good that you're looking at these, whether or not this is the right project'. She was disappointed that no-one had put their hand up and said, 'It's good that you're doing this'. She personally supported it, but could not say so in that form of the committee, sadly.

[247] **Christine Gwyther:** To test you a bit further on that, Dave, I know that you have strong links with one of the schools in Barry, because I went there years ago and it was twinned with a school next to another plant, somewhere else in the world—I have forgotten

where. Clearly, everyone in that school knew about the work that you did and understood how important you were to the community, so I am disappointed on your behalf that you did not get more buy-in from the community to your project. Did you explain all of the other energy-saving measures that you were undertaking? I was slightly disappointed that you almost poo-pooed the 1 per cent that you were saving on lighting, but that would be an enormous saving on your energy bill and it should be trumpeted. Was that sort of link made?

[248] **Mr Proctor:** I did not mean to give the impression that we had not done anything on lighting. We have looked at the type of fittings, the turning off and the motion sensors. We have done all that. The comment was really that a lot of support information out in the general community is around heating and lighting, because it applies to everyone. We have done that, but it is a tiny fraction of our energy use, most of which is on the process side. We have done everything that we can on lighting and heating, but the bulk of the bill is on the process side and that is where we are focusing now—on the specific technical issues on the site. So, we have dealt with the heating and the lighting. We have even had campaigns with people going around out of hours—not us—and naming and shaming people who have left lights on in warehouses or cloakrooms or whatever. Mark has even set up light fittings in kitchen areas that turn off through motion sensors and those sorts of things.

[249] **Christine Gwyther:** That is really good, because we are all guilty of that sort of misdemeanour, every one of us.

[250] **Mr Proctor:** I apologise if we gave the wrong impression. We have done that, but it is not a large part of our site use.

[251] **Christine Gwyther:** I have a question on the best available technology rules. It always appeared to me—because I had a local difficulty with the old rules, which included the not-entailing-excessive-cost clause—and certainly local people thought this, that the not-entailing-excessive-cost clause gave large industry, in particular, too much of a cop-out. Were you comfortable with the rules and regulations being tightened up so that it was just about best available technology?

[252] **Mr Tyso:** If I said ‘best available technology’, I was not using it in a legal context, but in an aspirational context for Dow Corning—BAT, or best available technology not entailing excessive costs, as it used to be, is referred to more in environmental legislation. When we were making the big investment decisions up front, we were trying to do the right thing, and, even in our current projects, we try to look at the whole picture and try to pick the best efficient drives that we can, without getting to a point where we are using some completely new and experimental technology that has not been proven and, potentially, has a very high cost. We are taking the best commercially available technology and implementing that.

[253] **Mr Proctor:** The other comment that I would make on that is that BAT and BATNEEC came from the integrated pollution control and integrated pollution prevention and control side. Within the last two years, we have put in place lower rate-of-return hurdle rates for energy projects. There is a general rate of return that Dow Corning expects, but we have a softer or more flexible economic approach for energy in total savings projects, so they do not have to reach the same hurdle rates that more general projects would. That makes it easier to build in things that are longer-term energy savings or total savings.

[254] **Christine Gwyther:** I am sure that it has to be a progressive way forward. I see that there are no other questions. Thank you very much for their evidence this morning. It allows us to scrutinise what the Government is doing and some of the things that you said about the generic nature of support were very useful. If you want to listen in to the rest of the committee, you are very welcome to do so, or you may go.

12.10 p.m.

‘Cymru: Economi yn Ffynnu’ a Materion Cydraddoldeb
‘Wales: a Vibrant Economy’ and Equality Issues

[255] **Christine Gwyther:** This is scrutiny on ‘Wales: a Vibrant Economy’ and the way that it addresses equality issues. Tracey Burke and Bethan Bateman will come to the table and help us on that. Minister, would you like to lead off on this?

[256] **Andrew Davies:** I welcome Tracey Burke and Bethan from my department’s policy and strategy group. This is an opportunity to give an update on the equality and diversity themes in ‘Wales: a Vibrant Economy’. This is an important paper, as it highlights the fundamental relationship between economic development and equality and diversity. For example, failures in the labour market due to outmoded ways of operating, occupational segregation and discrimination limit the flexibility of the labour market and prevent the most effective deployment of people, which ultimately lowers the efficiency of the Welsh economy. So, promoting equality is certainly not an afterthought from our point of view but an intrinsic component to delivering a strong, sustainable and vibrant economy.

[257] As we, and I, have said on many occasions, ‘WAVE’ is not an action plan but a strategic framework, and my officials, in consultation with external stakeholders and other Assembly Government departments, for example, the Department for Education, Lifelong Learning and Skills, have been engaged in developing the equality and diversity themes into tangible actions and those are outlined in the committee paper before you.

[258] We aim to ensure that my department is fully compliant with equality legislation and to go beyond the current legislative requirements to develop new and innovative approaches to mainstreaming equality in economic development. So, this is not just about it being a bolt-on or an add-on part of our policy and delivery, it is central to the delivery of our economic development objectives.

[259] Gareth, Tracey and Bethan are to here to answer any specific questions.

[260] **Alun Cairns:** I have raised this point in general before, and I am not making it as a party political point; I am just making it as a practical point. It worries me that the Global Entrepreneurship Monitor highlighted the economic losses of our not having as many female entrepreneurs as we would like. That is fine, as there is a long history behind that and I am not apportioning blame. The Minister has recognised that, which is helpful and constructive. I raised this issue in the Chamber with the Minister with responsibility for equality and it was obvious that, several weeks after that report was published, that Minister was not even aware of it. It worries me that, if this is such a cross-cutting policy, perhaps we are not as joined-up as we would like to be. That was worrying in terms of the news that had been presented in that report. It was presented and, I hope, received objectively, and that is the impression that I got from the Minister at the time. On the other hand, the Assembly Minister with responsibility for equalities is not even aware of it. So what joined-up action is taking place? What action is the Minister taking to ensure that it is genuinely cross-cutting and not an add-on and that the whole Cabinet has bought into this with regard to the economic opportunities that we are potentially missing out on at present?

[261] **Andrew Davies:** We see it as a major priority. Equality of opportunity is one of our cross-cutting themes, as is sustainable development, for example. I cannot answer the specific question about the Minister with responsibility for equalities, but there is increasingly an integrated approach towards tackling these issues through everything that we are doing at

Cabinet and Cabinet sub-committee level, and through the work that Gareth Hall is doing at a director level with others in the senior business team at a senior management level in the Assembly Government, as well as at an operational level. I would be the last to say that we have it completely sorted, but we are certainly looking to mainstream this in everything that we do. For example, there is the Potentia programme, which is funded by Europe, on how we are dealing with under-represented groups, whether that is in terms of gender, disability or ethnicity. There were separate programmes within the overall Potentia programme.

[262] With regard to the enterprise review, which is being taken forward by the director of enterprise, Vanessa Griffiths, we are looking to mainstream those programmes into everything that we do rather than leaving them as stand-alone programmes. So that is one example of how we are mainstreaming equality issues into the delivery of business support. I do not know whether Gareth or Tracy would like to add anything to that.

[263] **Mr Hall:** It is not just done at the strategic level, but at an operational level. Yesterday, I chaired the Olympic Games 2012 group. Increasingly, we are embedding this cross-cutting approach, from a practical point of view, across the Assembly Government, into major events, schemes and priorities. As the Minister said, we are getting all the different parties engaged from the first base rather than seeing these things as an add-on.

[264] **Ms Bateman:** I would just add that, obviously I cannot comment on the—*[Inaudible.]*—but there is a strategic equality and diversity unit that has been set up in the Assembly, under Huw Brodie and senior officials, which is bringing together work across all the Government departments and we are active in that.

[265] **Alun Cairns:** I do not want to go over old stuff, and it is good to hear about the positive things that are taking place and the examples that have been highlighted, but we need to ensure that we are completely comfortable that this is genuinely being done right across the board rather than in isolated examples. So, what measures are you using to ensure that we are succeeding with regard to the equality agenda? Are you using gender evaluation methodology, Women in Business, or whatever, to benchmark where you are, where you are going and what progress you have made in the last 12 months, so that you can say, ‘We are not quite there yet, but we are getting better’, or whatever it might be?

[266] **Ms Bateman:** We are producing economic snapshots of progress against the ‘WAVE’ tracking indicators and for the top eight, which are in annex 2 of the committee paper, we have made a commitment to disaggregate those statistics according to gender, age, disability and ethnicity. That way, we can begin to evidence how our policies interact across a diverse population. Moving on from that work, we would then want to look at areas where indicators may not be moving in the positive direction for certain groups and look at either why mainstreaming is not affecting that or at specific initiatives that we could begin to develop to deal with it.

[267] **Janet Davies:** Pathways to Work in Bridgend and Rhondda Cynon Taf appears to be successful, so what sort of programme is there for rolling those out and getting comprehensive coverage? Does it need to be changed or tweaked?

[268] **Ms Bateman:** The Department for Work and Pensions has a roll-out programme for rolling out Pathways to Work and Want to Work across Wales, which is looking at engaging the private and voluntary sectors as deliverers. That is under way.

[269] **Leighton Andrews:** This is partly on the back of what Janet has just asked. I was going to ask about economic inactivity. Pathways to Work has been successful and I am familiar with that programme, but I wanted to ask about the issue that you raised about carers. I suppose that it is about the disaggregation of the data at the end of the day, because, when

we talk about economic inactivity, we consistently say, ‘Okay, unemployment is now very low in the Valleys, but economic inactivity remains significant’. Really tackling it means getting to grips with what is going on beneath the surface figures, to be frank. Clearly, carers may not be in a position to return to work, certainly not full time. There is also the provision of childcare and all of those other issues. I just wondered to what extent we are now expecting to see the results of programmes that have been in place for some time.

12.20 p.m.

[270] **Andrew Davies:** There are some figures that we have disaggregated, which we can make available. Until now, they have tended to be done on the basis of west Wales and the Valleys versus east Wales, but we have broken the next three areas down into smaller areas, as well as according to gender, age and disability. So, they can be made available if you wish.

[271] **Ms Burke:** Beth will talk about carers, but, in terms of the data, sample sizes are often quite small, and so it is very difficult to do a multivariate analysis, for instance. We tend to be able to look at only one variable. We are working on this now with the Statistical Directorate to try to improve—

[272] **Leighton Andrews:** Before Bethan comes in, just on that point, did the Department for Work and Pensions not do some of this work when it did Pathways to Work?

[273] **Ms Burke:** Yes, it did, and, obviously, we can utilise that. However, if we are really to get the best understanding, we need greater disaggregation and better multivariate analysis.

[274] **Ms Bateman:** On carers, we identified in ‘Wales: A Vibrant Economy’ that caring responsibilities are a major factor in the economic inactivity of women, particularly. So, we have developed a number of initiatives. However, on the economic development side, we are trying to develop flexible labour markets that can accommodate people who may not be able to work the traditional hours of 9 a.m. to 5 p.m. and to promote that local labour market and flexible approach. That is another way that we would do it, as well as looking at caring facilities and childcare.

[275] **Christine Gwyther:** Finally, I want to come back to the economic inactivity issue. In the summer, I helped to launch a project called Capacitate in Carmarthenshire, which not only aims to help people with disabilities back into work, but also aims to help people who become disabled while they are working to stay in work. So, it gives employers some confidence to put measures in place to keep people in work, and to keep those staff whom they value. Is anything like that happening across the rest of Wales? It is a great project for the county, but, if we really are going to tackle economic inactivity, we need to roll that out.

[276] **Ms Bateman:** Several projects are looking at retaining people in work, including people with disabilities, involving the role of occupational therapists, as well as looking at how a number of different measures can be brought in. I know that we are doing a lot of that, working with the Department for Education, Lifelong Learning and Skills. If you look at the next round of European structural funding, you will see that the strategic framework currently being drafted under the measures is looking at retaining people in work, and not only when they move away from the labour market. Helping people to manage their conditions while in work will be one of our key priorities.

[277] **Christine Gwyther:** It is important not to demonise employers but to facilitate them, because they do not want to see people go; sometimes, they just do not know how to keep them in work. So, I would certainly support any work in that direction.

[278] **Andrew Davies:** There is a lot that we can do with employers to change what may be

their negative perceptions of employing people with disabilities. Having talked with companies throughout Wales, I know that, given the tightness of the labour market in many areas, they are now employing what they would consider to be non-traditional sources of labour. I know that, in many cases, the employers of people with physical disabilities, for example, say that they are the best employees that they have ever had.

[279] **Christine Gwyther:** They also have lower sickness records, which is just amazing.

[280] **Andrew Davies:** It may mean that employers have had to adapt furniture, PCs and so on, or address, quite rightly, issues of access. However, once those things have been done, they have said to me, almost consistently, that they are the best workers that they have had.

[281] We have been talking mainly in terms of outcomes. On a process matter, we take equality very seriously in my department. At senior management level, there has been a significant change. I am not sure of the overall figures, but almost one third of senior management is made up of women. That is a big change from the former Economic Development Department.

[282] **Christine Gwyther:** Okay, I see that everyone is happy.

[283] **Andrew Davies:** We can make the disaggregation of the statistics on economic activity available.

[284] **Christine Gwyther:** That would be great. That ends the meeting.

*Daeth y cyfarfod i ben am 12.26 p.m.
The meeting ended at 12.26 p.m.*