



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

**Y Pwyllgor Cynaliadwyedd  
The Sustainability Committee**

**Dydd Iau, 9 Hydref 2008  
Thursday, 9 October 2008**

**Cynnwys**  
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Procedural Motion

Cofnodir y trafodion hyn yn yr iaith y llefarwyd hwy ynddi yn y pwyllgor. Yn ogystal, cynhwysir cyfieithiad Saesneg o gyfraniadau yn y Gymraeg. Mae hon yn fersiwn ddrafft o'r cofnod. Cyhoeddir fersiwn derfynol ymhen pum diwrnod gwaith.

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. This is a draft version of the record. The final version will be published within five working days.

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

Mick Bates	Democratiaid Rhyddfrydol Cymru (Cadeirydd y Pwyllgor) Welsh Liberal Democrats (Committee Chair)
Lesley Griffiths	Llafur Labour
Darren Millar	Ceidwadwyr Cymreig Welsh Conservatives
Rhodri Glyn Thomas	Plaid Cymru The Party of Wales
Brynle Williams	Ceidwadwyr Cymreig Welsh Conservatives
Leanne Wood	Plaid Cymru The Party of Wales

**Eraill yn bresennol**  
**Others in attendance**

Richard Carter	Ymddiriedolaeth Amgylchedd Cymru Wales Environment Trust
Ian Draisey	Dulas Cyf Dulas Ltd
Catrin Maby	Cyfarwyddwr, Asiantaeth Ynni Hafren Gwy Director, Severn Wye Energy Agency
Monika Munzinger	Building Research Establishment Building Research Establishment
Richard Tomlinson	FRE-Energy Ltd FRE-Energy Cyf
Cris Tomos	Prosiect microgynhyrchu cymunedol Hermon Hermon community microgeneration project
Nick Tune	Cyfarwyddwr, Building Research Establishment Director, Building Research Establishment Wales

**Swyddogion Gwasanaeth Seneddol y Cynulliad yn bresennol**  
**Assembly Parliamentary Service officials in attendance**

Dr Virginia Hawkins	Clerc Clerk
Meriel Singleton	Dirprwy Glerc Deputy Clerk

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

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

[1] **Mick Bates:** Bore da. Welcome to this morning's committee meeting. For some of us this is a trip down memory lane—for those of you who do not know, this room is where we used to meet prior to the opening of the new Senedd building. I apologise for any inconvenience caused by the current circumstances. I have a few housekeeping announcements to make, some of which are unusual.

[2] In the event of a fire alarm, you should leave the room via the marked fire exits and

follow the instructions of the ushers and staff. No test is forecast today. Please ensure that all mobile phones, pagers and BlackBerrys are switched off, as they interfere with the broadcasting equipment. The National Assembly operates through the media of both Welsh and English; headphones are provided, through which simultaneous translation is available. For those who are hard of hearing, they can also be used to amplify the sound. There is only one switch at the bottom of these headphones—switch them on and adjust the volume as necessary. Please do not touch any of the buttons on the microphones, as that could disable the system. If anyone has to get up at any point in the meeting, and you need to pass the camera nearest the door, please duck. Are you clear about which camera it is, Darren? I see that you are.

[3] I have received apologies for absence today from Karen Sinclair, Alun Davies and Lorraine Barrett. As you are aware, there is quite a clash of committees this morning. It is with great pleasure that I welcome Rhodri Glyn Thomas to the committee, who is replacing Alun Ffred Jones. I put on record my thanks to Alun Ffred for his contributions to the committee. We have already had one Rural Development Sub-committee meeting, in which Rhodri Glyn and I have renewed our acquaintance of each other's views, and I look forward to his contribution to this inquiry into carbon reduction. I am certain that it will be constructive and useful for our final recommendations. You are very welcome, Rhodri.

9.08 a.m.

**Ymchwiliad i Leihau Allyriadau Carbon Cymru: Sesiwn Dystiolaeth ar  
Gynhyrchu Ynni  
Inquiry into Carbon Reduction in Wales: Evidence Session on Energy  
Production**

[4] **Mick Bates:** Today we are taking further evidence in our inquiry into carbon reduction. It is a great pleasure to welcome those whom I term the practitioners, that is, those who are doing the work. To that end, last week, we heard from the Micropower Council about the great advantages of microgeneration, how it decentralises power supplies, localises them and helps to change behaviour. I welcome our first five witnesses this morning, one of whom will be staying for the second session. I invite you all to introduce yourselves for the record and to make a three-minute presentation. I also thank you for the excellent papers that you have submitted beforehand.

[5] **Ms Maby:** Bore da. I am Catrin Maby from the Severn Wye Energy Agency. The main points that I would like to highlight from my paper are, first, that in order to achieve the necessary carbon emission and fuel poverty targets, we need to address the issue of sustainable energy in existing buildings holistically, that is, by maximising the take-up of energy efficiency and renewable energy measures as well as behavioural change, rather than treating the issues separately.

9.10 a.m.

[6] I will explain what I mean by that: in terms of the significant physical measures, microgeneration might best be considered alongside solid wall insulation, in that they are known technologies that are, as yet, failing to achieve adequate market penetration in the UK. They continue to have high capital costs and long payback periods. Although the low-carbon buildings programme is a step towards addressing the problem, it is, in our view as practitioners, inadequate in its present form, and needs to be complemented by other programmes in order to provide a complete package of support. That would include the following: the right level of advice, in order to identify and prioritise measures for each building; advice on sources of finance; help with applications, and with finding suppliers and

installers; and follow-up advice, in case of problems. We would like to emphasise one of the most important practical points: you need a practical and streamlined package of finance appropriate to each sector, and an overview of how the measures will be financed—whether that includes grants, loans, householder investment, community-buildings fundraising, and so on. We need a more complete overview because much time is wasted trying to knit together diverse packages of finance.

[7] For community buildings, 100 per cent funding, or close to 100 per cent funding, is needed because of the competing priorities in maintaining them, although they can, of course, raise funds. The timescales of different grants funds are difficult to bring together. If you want widespread implementation in the domestic sector, there needs to be a level of funding sufficient to reduce the investment required by the householder to an amount that is, generally, feasible. The measures should pay for themselves within a reasonable length of time. To give you an idea about that, a payback period of seven years is used as the basis for the division between cost-effective and other measures in energy performance certificates. However, the solid wall insulation and microgeneration measures that I have grouped together have very much longer payback periods, and the current grant levels available to the domestic sector do not reflect that. So, there is a conflicting message for households.

[8] Finally, we have identified some specific issues that could be significant barriers to the low-carbon buildings programme. There is unnecessary complexity and confusion over VAT, which is excluded from grant claims and can be payable at different rates for different buildings. There are problems caused by installers needing deposits, and grant payments being made after final bills are due on community buildings—you can imagine what that means in practice. There is also a risk of smaller companies being excluded from the installation market, due to the costs of accreditation, and the fact that there is no sliding scale on that. That could also have negative consequences for rural employment and could even mean higher prices for consumers, who would have to go to installers based in centres of economic activity. Indeed, it could have an unintended consequence in terms of transport emissions, because installers would be travelling.

[9] **Mick Bates:** Thank you, Catrin, for those opening remarks. I am informed that someone still has a phone switched on; if you have a phone, please check that it is switched off. Thank you.

[10] Would the next presenter please introduce himself and begin his presentation?

[11] **Mr Draisey:** My name is Ian Draisey, and I am the marketing director of Dulas Ltd, which is an SME based in Machynlleth. We employ 55 people, all working in renewable energy, and our projected turnover for 2008 is about £10 million. Of that, £1.7 million goes in salaries, direct to the local economy in a 25-mile radius around Machynlleth. We are, therefore, an important employer now, as people keep telling me.

[12] That is part of my focus in my comments. The importance and efficiency of microgeneration is clear. I was pleased to hear that the Micropower Council has discussed the additional impacts upon energy efficiency and energy use, particularly in the domestic sector, from microgeneration installations. However, I was dismayed to read the renewable energy strategy from the Department for Business, Enterprise and Regulatory Reform, as photovoltaics are virtually ignored, because of the power involved, and their carbon impact. Please, Wales, do not make the same mistake. Photovoltaics amounts to 50 per cent of our business and contributes £5 million to the Welsh economy. We are just one of a large number of solar power companies in Wales. Do not throw the baby out with the bathwater.

[13] Although the Assembly does not have independence and decision-making rights over energy, I would ask you to look for an opportunity to provide consistency. Our industry has

had stop-start grant funding, incentives and a lack of incentives. I would like to think that there was an opportunity now—with the new energy policy on the way, a new energy strategy, and a specific strategy for renewable energy—to look at microgeneration outside the box a little. I know that the Minister for Environment, Sustainability and Housing has been proactive on that. What we are hearing from the industry on the policies that are being developed there is positive.

[14] On mass-market renewables, we can expect a step change in the industry. You will see the utility companies starting to take the initiative; you have already seen Generation Green on your television screens, which is how British Gas is dealing with schools. We should follow that lead; it is a commercial lead, and, as businesses, we have no alternative—we must follow that lead. Microgeneration is moving into the mass-market sector, because of all the benefits that you have just heard about, and also because of obligation. I am afraid that obligation remains the major driver—it is still not because of payback or social conscience.

[15] I am dismayed by the lack of take-up of the low-carbon building programme at the public sector level. I can understand the commercial reality of the grants not being big enough in the domestic sector, but, in the public sector, it has been truly disappointing. I spoke yesterday to an energy manager at a local authority in preparation for coming to talk to you today and, even though our efforts have not been inconsiderable, and even though it has been promoted highly at all levels, only two, or perhaps three, of that local authority's schools have even considered it. The best example that I can give you is that of the school that two of my kids attend. We wanted a wind turbine at that school. I am the director of a renewable energy company that is a framework supplier on the low-carbon building programme. Although I have raised £44,000 of match funding—and that is coupled with the low-carbon building programme funding—I have had to fight for it for 18 months, and we still do not have a wind turbine at the school. There is no-one better placed than me to do that, and we had all the money and everything, but we are fighting against the tide.

[16] On the microgeneration certification scheme—the accreditation scheme that governs small installers—Dulas is operating a network of smaller installers across the UK, and we are passing on skills. Therefore, you may not need a sledgehammer to crack that nut.

[17] Finally, on small hydropower developments, there are opportunities. There are double renewables obligation certificates coming in for schemes in April, supposedly, which will make hydropower very attractive. However, please be aware that, compared with wind energy, microgeneration, solar power, biomass and ground source heat pumps, it is a limited resource. At present, it is too expensive to exploit on any commercial scale. Unfortunately, we have seen that ship arrive and sail away, through the funds that came via Objective 1 and the European regional development fund, which was administered by the Welsh European Funding Office, and was for promoting 10 schemes in Gwynedd alone. It brought £1.5 million, which was waved under our noses and the noses of potential projects, and then went straight back again without a single penny being spent. I would not want to see that happen again.

[18] I am sorry that that seems not to be a very positive message, but, actually, it is positive.

[19] **Mick Bates:** It is the type of evidence that we want to hear—thank you. Richard, would you like to go next?

[20] **Mr Carter:** Until the end of last month I was with the Wales Environment Trust; however, due to a situation with the organisation's funding, I am no longer with it. Funding for several of the trusts' programmes ceased and was transferred to the waste and resources action programme, which is based in England. I have been working in Wales for the last

seven years on waste and resource efficiency programmes, which overlaps into energy efficiency from fledgling technologies in pyrolysis and gasification, anaerobic digestion, energy from wood, and practical anaerobic digestion.

[21] My experience has been similar to that of previous speakers. In any of the projects that I have worked on, there has always been some individual somewhere who seems to have made it their role in life to act as the opposition to the development of a programme. It seems impossible to get a project through without someone, somewhere, causing a difficult hold-up over the funding or planning element of it or whether it is in terms of the Environment Agency. In terms of planning applications, projects can be dragged on for significant periods, meaning significantly increased costs for the developer, and unnecessary restrictions can be introduced.

9.20 a.m.

[22] For example, one company, a small-scale wood energy producer, wanted to burn clean wooden pallets and a little construction demolition wood, which would have come under a paragraph 5 exemption, but the local authority objected to the project on the basis of its interpretation of legislation and tried to force an environmental impact assessment, the cost of which would have led to the developer not taking the project forward. It took about nine months of going back and forth to the local authority to overcome the problem, which should not have been a problem in the first place. This was a 100 kW, wood-powered electrical generator, similar to what is going into the Centre for Alternative Technology in Machynlleth, and the local environmental health officer said, 'If this project is successful, similar projects will proliferate'. I was slightly stunned by that, because that was the whole point. We are trying to ensure that these projects proliferate, but that was the objection. So, that person had decided that they would make it their job in life to object to this, in case such projects proliferated, because there was a concern that they might collectively cause increased pollution. Personally, I believe that if it is regulated by the Environment Agency and the development falls within the regulation, that should be enough, and if we can have lots of them, that is fantastic.

[23] With planning, we find that delays and procrastination are being introduced, and people wait until the last minute to bring up objections, which is an age-old tactic that is still being used; it is commonplace. When projects drag on, you have to keep going back and re quoting, and every time you do that, the quote for something will have gone up, and some people will, ultimately, give up. For example, in terms of the fledgling gasification technologies, we were looking to bring a demonstrator to south Wales, to carry out an installation onto an existing transfer station, inside an existing building—and it would only have burned clean wood—and planners objected on the basis that a 6 ft steel pipe would be sticking out of the top of a building that is a couple of thousand metres cubed, and said that that represented a requirement for full planning permission. Common sense needs to be applied to these matters.

[24] As a result of these sorts of situations, where constant support is required to push projects through—the term 'streamlining' is being used—indigenous organisations with seven to 10 years' experience, such as we have, are being moved out of the way and all of the relationships that we have developed over time and all the confidence that, hopefully, we have been able to build with planners are being removed. I am not sure where the intensity of the support that is required will come from to push these projects along.

[25] The last project that I worked on was a 40,000 tonne, anaerobic digestion project in the Brecon Beacons National Park, which received planning approval on the final day, through determination. I just checked this: I had to send 125 e-mails relating to that project over the course of 12 months. So, once every three days, I was submitting documentation and

resubmitting documentation. These were not e-mails saying, 'I hope you're feeling well'; they were e-mails providing documentary support, updating that documentary support and bringing in opinions from third parties on an ongoing basis. It may be that some parties are of the opinion that the simple provision of a grant aid or of a programme means that the job is done and facilities will be provided, but the reality is that people out there are willing to take advantage of the opportunities, but they are struggling to get things through. They need a lot of support to push things through, and—

[26] **Mick Bates:** Could you draw your remarks to a close, please?

[27] **Mr Carter:** Yes. Institutional barriers are still in place and it goes as far as people saying, 'If this works, they will make money out of it and they are only doing it to make money'. So, a lot of obstacles need to be overcome.

[28] **Mick Bates:** Thank you. We need time to ask questions, but we will now move on to Cris Tomos. Could you introduce yourself and make an outline statement?

[29] **Mr Tomos:** Fy enw i yw Cris Tomos, cadeirydd gwirfoddol o fudiad cymunedol yn Hermon, Llanfyrnach yng ngogledd sir Benfro. Grŵp cymunedol ydyw, oll yn wirfoddolwyr, sy'n edrych ar y posibilrwydd o gynllun i greu ynni o fewn ein cymuned. Cawsom arian dichonoldeb drwy'r parc cenedlaethol yn sir Benfro, a daeth Dulas Cyf. i lawr i edrych ar fathau gwahanol o ynni, gan gynnwys ynni'r haul, dŵr a gwynt ac ati. Bu inni benderfynu, drwy ymgynghori'n llwyr â'r gymuned, codi dwy felin wynt yn Llanfyrnach a bwrw ati i edrych ar gynllun gwerth £1.1 filiwn. Yr wyf yn falch o ddweud bod Cyllid Cymru a'r Charity Bank yn barod i'n cefnogi gyda benthyciadau. Yr ydym wedi bwrw ati gyda'r broses o gyflwyno ceisiadau cynllunio, a bu'n frwydr i raddau gan ein bod wedi cyflwyno'r cais, ond gofynnwyd chwech neu saith cwestiwn ychwanegol, a rhaid inni godi tua £30,000 i gael yr arbenigwyr i mewn i oresgyn y rhwystr olaf.

**Mr Tomos:** My name is Cris Tomos, and I am the voluntary chair of a community organisation in Hermon, Llanfyrnach, in north Pembrokeshire. It is a community group made up entirely of volunteers, and it looks at the possibility of a scheme to create energy within the community. We received feasibility funding through the national park in Pembrokeshire, and Dulais Ltd came down to look at different kinds of energy, including solar, hydro and wind and so on. We decided, by consulting fully with the community, to construct two wind turbines at Llanfyrnach and set about looking at a project worth £1.1 million. I am pleased to say that Finance Wales and the Charity Bank are willing to support us with loans. We have started the process of making planning applications, and it has been quite a battle, given that we submitted an application, but six or seven additional questions have now been asked and we need to find some £30,000 to get the experts in to overcome the final hurdle.

[30] Gyda'r arian a geir o werthu'r ynni i'r grid cenedlaethol, byddwn yn ystyried gosod dau dyrbin 1.2 MW, gan gynhyrchu gwerth £330,000 o ynni i'w werthu i'r grid ac, ar ôl ad-dalu'r benthyciadau, a thalu costau cynnal a chadw blynyddol a'r gronfa ddibrisiant, bydd gan y gymuned £80,000 o elw net. Mae'n dipyn o beth i gymuned fach yn y Gymru wledig gael £80,000 y flwyddyn i'w wario ar ddatblygu cymunedol a datblygu gwasanaethau o fewn y gymuned.

With the money generated from selling this energy to the national grid, we will look at two 1.2 MW turbines generating £330,000 worth of sales to the grid and after repaying the loans, annual maintenance and the depreciation reserve, the community will be left with £80,000 as net profit. That is quite something for a small community in rural Wales. That is £80,000 a year to be spent on community development and developing services in the community.

[31] Yr ydym hefyd wedi cynnal gweithdai yn y gymuned gyda chefnogaeth

We have also held workshops with the support of Planed in north Pembrokeshire to



Planed yn ngogledd sir Benfro, i edrych ar brosiectau trafnidiaeth, datblygu cymunedol a thai fforddiadwy, a gwelwn fod datblygu cynllun o'r fath yn ein gadael gydag arian i fod yn hunangynhaliol yn hytrach na'n bod yn dibynnu ar grantiau parhaol i sicrhau datblygiad ein cymuned.

look at transport, community development and affordable housing projects, and our view is that developing such a scheme enables us to have money to make ourselves self-sufficient, rather than our having to depend continuously on grants to ensure the development of our community.

[32] **Mick Bates:** Da iawn a diolch yn fawr.

**Mick Bates:** Well done, and thank you very much.

[33] Richard, would you like to say a few words about your experiences?

[34] **Mr Tomlinson:** I am Richard Tomlinson, and I am a dairy farmer from north Wales and a director of FRE-Energy Ltd—farm renewable environmental energy. We are currently building an anaerobic digester. Having failed to receive any grant funding, we are just cracking on with the job. Anaerobic digestion is an excellent form of sustainable development. I do not want to knock wind turbines, but anaerobic digestion costs half the price per kilowatt hour of deliverable energy and delivers that power 24 hours a day, seven days a week and not just when the wind blows. So, it is a useful form of renewable energy.

9.30 a.m.

[35] A network of small, farm-based digesters scattered across Wales would recycle the mixture of animal slurry and food waste from locally sourced materials. The energy within these feed stocks would normally be lost to the atmosphere, releasing the greenhouse gas methane from landfill or composting. However, that energy is captured and used to create renewable electricity, and, given that agriculture is currently being blamed for the hole in the ozone layer, that would be a good thing. The local community can then use the energy in the form of electricity and heat to power and heat nearby homes, restaurants, hotels, schools and so on. For every 1 kW of power that an anaerobic digester produces through a combined heat and power unit we produce 2 kW of heat. The heat needs to be used and it is much easier to do so in a small, community-scale development.

[36] The remaining organic matter is then converted into a valuable nutrient, which is returned to the farmland, replacing dependency on increasingly expensive chemical fertilisers to grow affordable food sustainably. I was at a meeting last night where it was said that, with wheat costing £85 to £90 per tonne, it is no longer economic to put fertiliser on these crops. It is estimated that it takes 7 tonnes of fuel to make 1 tonne of nitrogen fertiliser, but, as energy prices increase, we will have to look at recycling more of our food waste, getting it back onto the land, getting the nutrient cycle, and closing the nutrient cycle. That is the key. It is also important that those sustainable benefits are embedded in the community.

[37] Our experience with grants has not been particularly good. We applied for a grant under WRAP, the waste and resources action programme, but its focus was definitely on large-scale centralised facilities where huge distances lost the economic value of the carbon benefit. These projects do not suit large centralised projects. You cannot use the heat, and, as soon as you have to put wheels underneath digestate, which is only 12 per cent dry matter, the costs escalate to make the projects unviable. There are already examples in the United Kingdom of anaerobic digestion plants that have been built too big and have gone bust. The one that I am thinking about is farm-based technology. It has to be local and based on farms.

[38] The administration adopted an arrogant attitude towards the needs and skills of our application. We found that the technologies favoured in our application were definitely foreign. The administration was trying to push us towards foreign technology, and proven

home-grown technology was considered to be irrelevant. So, there was no opportunity to develop a Welsh anaerobic digestion industry. We found this to be very disconcerting. We feel not only that the technology should be adopted in Wales, but also that Wales should be allowed to manufacture the technology and develop it, rather than import foreign technology. When we made our application, of the two technical assessors on the WRAP panel, one had to resign because of a vested interest and the other was applying for millions of pounds for his own university's facility. It is just unbelievable how badly this grant has been administered through WRAP, and I could not slate them enough. *[Laughter.]*

[39] Claims made by the panel were factually incorrect, and it was verbally suggested that, if we continued to press the panel for an explanation, it could jeopardise any future applications that we might make, and that the faults were purely down to the Assembly. WRAP was going to re-administer the grants application process and we would have an opportunity to have the issues clarified by WRAP's technical experts, but we have never had a detailed response to our complaints. Is the purpose of grants in Wales to encourage and support Welsh sustainable economic development, or is it to fund English administrators? We have worked with the Wales Environment Trust, through Richard Carter, and found that it gave excellent support for our project. I cannot believe that it no longer has funding, or that WRAP has now taken the reins from a Welsh company and is making an absolute Horlicks of putting these grant applications together.

[40] The other main obstruction, as I mentioned earlier, is planning. Planners are terrified of anything that mentions the word 'waste'. We need to change the term 'waste' to 'co-product'. Although we are talking about food waste, we are proposing pasteurising everything at 90-odd degrees. The anaerobic process kills the majority of bacteria. Whether it is foot and mouth disease, tuberculosis, E. coli, or salmonella, it kills them all. On top of that, we are talking about pasteurising every product that goes through the process, and still the planners feel that it is an industrial process and is unsafe. As soon as you mention the word 'waste', they run a mile. We need the Assembly to give planners the clear message that this is a good technology, that you are looking to support it, and that, if the application goes to appeal to the Assembly, it will get approval. That has to happen; otherwise, this will not move forward.

[41] Finally, on the Environment Agency, the people on the ground have given us a positive response. They all know and understand the benefits of AD, and they are keen to look for solutions and offer encouragement. Higher up the food chain, as it were, they seem to be hell bent on extending their influence, and it could be said that, for every solution, they find a problem. So, we need a clear steer from the Assembly to promote anaerobic digestion.

[42] **Mick Bates:** I thank all five of you for your excellent statements. I know that members are itching to get onto the questions, and so I will start with Lesley Griffiths.

[43] **Lesley Griffiths:** In your presentations, you all spoke about the main benefits of micro and small-scale renewables. Would you like to expand on that?

[44] **Mr Tomlinson:** I will just say that the national grid is not particularly efficient. If you are putting energy into the national grid, there is a lot more efficiency to be had by small-scale localised generation. The wastage in the national grid is huge: the big Drax-type power stations are only 30 per cent efficient. The majority of the heat is wasted from the enormous cooling towers. We can improve efficiency by more than 50 per cent simply by using the heat from any kind of generation, and that can happen efficiently only with localised generation, because the losses involved in moving heat across any distance are too great. So, this needs to be localised in future.

[45] **Mick Bates:** We need both, really. Would anyone else like to comment on that?

[46] **Mr Draisey:** At a local level, I have photovoltaic panels on the roof of my house, and the biggest impact that I have seen is on the kids and on their knowledge. It ties in with what is happening in the curriculum at school, as well. Education is promoting microgeneration and a greener way of living; it is the lost generation that we are struggling with, and that generation is currently making fundamental decisions that are preventing progress on microgeneration. The impact on the home can be huge.

[47] **Lesley Griffiths:** I am interested in what you say about photovoltaic cells, because Sharp UK is based in my constituency. It has created an education centre where it is teaching children, and that is an important point about photovoltaic cells, as you said in your presentation. Who is next, or shall I continue?

[48] **Mick Bates:** Please continue, and then we will hear from others.

[49] **Lesley Griffiths:** Would any of you like to give an overview on whether you think that the take-up of micro and small-scale renewables has increased over the years?

[50] **Mr Draisey:** I can tell you immediately that it is a tap waiting to be turned on. It just needs the right conditions. They used to be right. When I applied for my grant, it was £3,500 per kW installed, but now, it has been capped and the availability has been limited. I am talking about the low-carbon building programme, although I know we will come to that later. It has been disastrous. It has destroyed consumer confidence in any form of system for getting access to support for microgeneration. I will just leave you with that thought that it is a tap waiting to be turned on.

[51] **Mick Bates:** Would anyone else like to comment briefly?

[52] **Ms Maby:** I will add something quickly. We give advice to householders directly, and we have seen a huge increase in people's demand for and interest in renewable energy over the past two or three years. Previously, they thought that it was a strange technology and did not believe in it. Now, we have the demand but converting it into action is difficult, because when they see the prices and the reality of the investment required, they are put off. So, there is a massive opportunity being lost.

9.40 a.m.

[53] **Mr Tomos:** We are looking at larger-scale microgeneration, but we hope that, through production and sales, funding can be re-ploughed into household investment, to initiate developments there. Also, there is the matter of why we cannot have some sort of manufacturing unit to develop this technology for communities, as that could also offer employment to young people.

[54] **Mick Bates:** That is an excellent point.

[55] **Mr Carter:** It goes further. With regard to microgeneration, the scale of the equipment is likely to be determined by the scale of business that can be developed by the indigenous industry in Wales. We are not going to set up a new Alstom to make generators and power stations, but we can develop a new industry for renewable, small-scale technologies, but only if we support it, or at least remove the barriers to doing so. By doing so, implementation will bring you more than the embedded benefits in the communities; you can generate a fledgling industry as well. We have fledgling businesses in a host of technologies, but they need to be encouraged and supported, and their potential customers need to be allowed to implement the technologies that they are trying to develop.

[56] As Richard said with regard to the grant processes, there seems to be a desire to bring

in turnkey solutions from abroad rather than help indigenous technology industries. If we want sustainable development, we want to try to get the technology and the knowledge into the workplace as well as the benefits of the systems.

[57] **Mick Bates:** Thank you for that important point about necessary investment. I will bring Brynle in briefly on this point.

[58] **Brynle Williams:** On the agricultural side of it, Richard, have you any idea how many plants are operating in the UK on biogas produced from animal waste and so on? I understand that Germany is commissioning some 2,000 plants a year. I ask all of you why that is not happening here, because we have the basic products? Also, can human waste, as well as animal waste, be put through the same process in sewage plants? We have to recycle it all. Can this be utilised, and if so, why is it not being utilised?

[59] **Mr Tomlinson:** In answer to your first question, there are about 30 farm-based anaerobic digesters in the UK, and I think that only two or three actually produce electricity, with the rest just heating the farmhouse and cottages, and providing hot water for the dairies. That technology is Welsh—it has been developed on the borders, and it is still working today. There is an ample amount of home-grown technology out there to use as a basis to grow this industry.

[60] What was the second question?

[61] **Mick Bates:** It asked about the difference between development here and that in Germany.

[62] **Mr Tomlinson:** I have recently been to Germany to look at the technologies there. It is very heavily subsidised over there. They have built large digesters, mostly taking a certain amount of pig effluent or cow effluent, but there is also a large amount of food, mostly in the form of maize, but with wheat and barley also going in. They have exhausted their food waste from feedstock. The vast majority of their feedstock waste is already going through anaerobic digestion, and they are now on to the next stage, which is to put food waste into the digesters to create renewable energy. We are nowhere near that stage here. Something like 300 million tonnes of food waste is generated in the UK, and that currently goes to landfill. Our problem is that the majority of renewable electricity currently generated in the UK comes from methane gas from landfill sites—it is still a bigger source of energy than wind turbines at the moment. The majority of organic material is now being diverted into composting. The methane generated by that is currently wasted, being released into the atmosphere, thereby adding to cattle emissions causing damage to the ozone layer. Renewable energy is actually reducing as far as landfill is concerned, so waste has got to start going through AD. We are way behind Germany, and the reason for that is probably because we had North sea oil and gas. Germany has never had significant resources of that kind, so it has been looking at alternatives for much longer than we have.

[63] **Mr Draisey:** I would like to come back on that. The picture is— [*Inaudible.*] Germany, and Denmark before it, had what I call ‘RSPB moments’. It is all about policy. When you have the right policy in place, other barriers will move out of the way. About three years ago, the RSPB realised that all of the debates on windfarms were about bird strikes and the migration of birds. However, it then took a step back and realised that climate change is affecting many more types of birds and breeds, and extinction rates are much higher because climate change is a bigger threat. Therefore, it unilaterally supported wind farming. Germany did that 20 years ago; Denmark did it 25 years ago during the first oil crisis. It made bold policy statements about energy and energy independence. It saw that as being a bigger threat than what we currently see as being a threat.

[64] **Rhodri Glyn Thomas:** Hoffwn ofyn i Cris am y prosiect cymunedol yn Hermon. Un o'r problemau gydag ynni adnewyddadwy yw bod cymunedau weithiau yn teimlo bod y cynlluniau yn cael eu gosod arnynt, nad ydynt yn rhan o'r broses a'u bod yn gorfod derbyn rhywbeth sy'n effeithio yn andwyol ar eu cymunedau. A yw'r gymuned yn Hermon wedi prynu i mewn i'r prosiect hwn? A yw'r bobl yn teimlo mai prosiect sy'n ymwneud â nhw yw hwn? Yn ail, a ydych chi'n gweld y prosiect lleol yn Hermon fel rhywbeth sy'n mynd law yn llaw â chynlluniau llawer iawn mwy—cynlluniau cenedlaethol—er mwyn cyrraedd y targedau ar gyfer Cymru a'r Deyrnas Unedig o ran ynni adnewyddadwy?

**Rhodri Glyn Thomas:** I would like to ask Cris about the community project in Hermon. One of the problems regarding renewable energy is that communities sometimes feel that the plans are forced upon them, that they are not part of the process and have to accept something that has a detrimental effect on their community. Has the community in Hermon bought into this project? Do people feel that this is a project that involves them? Secondly, do you see the local project in Hermon as something that goes hand in hand with far bigger plans—national plans—in order to reach the targets for Wales and the United Kingdom with regard to renewable energy?

[65] Mae gennyf gwestiynau am gynllunio, ond hyderaf y byddwn yn dod yn ôl at y cwestiynau hynny yn ddiweddarach.

I have questions on planning, but I am sure that we will come back to those later.

[66] **Mick Bates:** Can we leave those for a minute, please? I want to look at the barriers first.

[67] **Mr Tomos:** O ran yr ymgynghori, bu inni gynnal gweithdai cymunedol i edrych ar ystod o ffactorau, a chodwyd ynni fel pwnc. Yn ein dalgylch yn Hermon, dros y ffin yn sir Gaerfyrddin, mae 11 o dyrbinau gwynt gan RES ym Mlaenwaun. Felly, mae'r isadeiledd sy'n mynd â'r ynni i'r grid yn bodoli yn Llanfyrnach. Edrychom ar yr hyn sydd gennym yn ein cymuned i ni allu manteisio arno. Dyna oedd y bwriad. O ran y ddau dyrbin, mae pawb yn cefnogi'r ffaith bod yr arian yn dod yn ôl i'r gymuned yn hytrach na bod cwmni rhyngwladol yn sefydlu fferm wynt, lle mae'r arian yn dueddol o fynd i'r cyfranddalwyr a'r farchnad stoc—beth bynnag sydd ar ôl o'r farchnad stoc. Yr ydym yn ymfalchïo yn hynny, ac yr ydym wedi derbyn cefnogaeth lwyr.

**Mr Tomos:** With regard to consultation, we held community workshops to look at a range of factors, and the subject of energy was raised. In our catchment area around Hermon, over the border in Carmarthenshire, RES has 11 wind turbines in Blaenwaun. Therefore, the infrastructure that takes energy to the grid exists in Llanfyrnach. We looked at what we could take advantage of in our community. That was the intention. With regard to the two turbines, everyone supports the fact that the money returns to the community; if an international company were to establish a windfarm, the money would tend to go to shareholders and the stock market—whatever is left of the stock market. We are proud of that fact, and we have received full support.

[68] O ran y targedau cenedlaethol, yr ydym yn teimlo ein bod yn cyfrannu at leihau lefelau carbon. Felly, byddem yn falch o weld yr un patrwm yn cael ei efelychu mewn cannoedd o gymunedau ar draws Cymru. Byddai màs critigol o gymunedau bach yn gwneud yr hyn y gallant ei wneud yn cael effaith go fawr ar dargedau Cymru.

With regard to the national targets, we feel that we have contributed to lowering carbon levels. Therefore, we would be pleased to see the same blueprint being used in hundreds of communities across Wales. Having that critical mass of small communities doing what they can will have a considerable effect on Wales's targets.

[69] **Rhodri Glyn Thomas:** Deallaf fod amser yn brin, ond mae gennyf un cwestiwn

**Rhodri Glyn Thomas:** I understand that time is short, but I have one more question.

arall. O ran y momentwm yn Hermon er mwyn creu'r prosiect cymunedol hwn—yr wyf yn gwybod am gyfraniad Cris i brosiectau cymunedol yn Hermon—a ddaeth y momentwm hwnnw o'r gymuned, neu a oedd yn gwbl ddibynnol ar unigolion sy'n sicrhau bod y prosiectau hyn yn cael eu gwthio ymlaen?

With regard to the momentum in Hermon in order to create this community project—I am aware of Cris's contribution to community projects in Hermon—did that momentum come from the community, or was it completely reliant on individuals who ensured that these projects were pushed forward?

[70] **Mr Tomos:** Mae'n ddibynnol ar y gymuned ar y pryd. Hynny yw, bu inni gynnal y gweithdai ymgynghorol ac, fel mae'n digwydd, yr oedd dau neu dri pherson proffesiynol gyda chefnidir peirianegol wedi ymddeol yn ein cymuned. Gwirfoddolodd y bobl hynny i geisio am grant o £8,000 gan y parc cenedlaethol i wneud y gwaith cychwynnol; felly mae'n ddibynnol ar dynnu allan y gwirfoddolwyr sy'n fodlon gwneud ymdrech dros eu cymuned.

**Mr Tomos:** It depends on the community at the time. That is, we held consultative workshops and, as it happened, two or three retired professionals with a background in engineering lived in our community. These people volunteered to apply for a grant of £8,000 from the national park in order to do the initial work; so it is dependent on drawing out the volunteers who are willing to make an effort on behalf of their community.

9.50 a.m.

[71] **Mick Bates:** Thank you. I wish to move on to examine the targets and the barriers to the development.

[72] **Leanne Wood:** You will be aware that the Welsh Assembly Government has set targets for microgeneration—we want to install 20,000 heating units by 2012, rising to 100,000 units by 2020. We also want to install 110,000 microelectricity units by 2012, rising to 200,000 units by 2020, and 50 combined heat and power or district heating systems by 2020. What progress is being made towards achieving these targets? The Micropower Council gave evidence to the committee last week, and it told us that the number of installations that we already have are not being measured. Is there a simple means of measuring the number of installations?

[73] **Mr Draisey:** I take a sharp intake of breath every time I hear those targets, as do the people responsible for setting them, I am sure. They are ambitious and fantastic targets, but a little sprinkling of reality might be needed. There are about 5,000 photovoltaic installations across the UK at the moment, and the Government has been stimulating that market for at least seven years. It has been a slow start, but 110,000 units by 2012 in Wales alone would require radical change, and I do not see any radical policy changes or radical grant initiatives on the horizon. The best way that I can demonstrate it is that, when I made the decision to go ahead with my photovoltaic installations, there was a 25-year payback period—it is what I do, so it was okay—it has now been up less than two years, and I am already down to somewhere between 12 and 15 years. That is not because the price of modules has come down—it has only come down about 5 per cent in that time; it is because of the other conditions that are changing, such as the price of electricity and the fact that I did not realise how inefficient I was at using electricity until I started watching it closely. So, invest in smart metering. Any energy agency advice will tell you to reduce before you start thinking about percentages, because a percentage of a smaller amount is easier to achieve than a percentage of a big amount. It is very simple in those terms.

[74] The target can be achieved, because there is a huge appetite out there in the domestic sector for change, but the policy is 100 miles away at the moment. Policy is mostly concentrated on new build, so the policy has fallen on its face a little. Jane Davidson is doing

very well in fighting a rearguard action on that and in trying to influence change in policy, but it was great while the building industry was going at 100 mph and people were clamouring to get mortgages, but that has all changed and it is not coming back in a hurry. So, we need policy that will react to the building stock that we already have.

[75] **Ms Maby:** If you look at the consumers that you are addressing and expecting to take up the measures, try standing in their position as householders, members of a community group or people managing a small business. For example, we did a feasibility study on a few standard, older, solid-wall houses, and we worked out what it would take to reduce the carbon emissions by 60 per cent, although we should be thinking 80 per cent now. It cost about £25,000 per house to do the basics, and that often included solid wall insulation, photovoltaics, solar thermal and maybe a heat pump, depending on the situation—a range of possibilities. You should work out what investment you expect the householder to make in that range of money—what is the grant level really required? Once you get those aspects right, you push it out and it goes very quickly. You obviously need to make sure that the supply chain is there to deliver, but if you leave it too late, towards the end of the targets, you will find that the supply may not be there, because you might also coincide with things rushing forward in other areas, and the industry takes time to adapt. However, I think that the industry will follow through if you can plan the practical packages of finance well in advance and add up the numbers, so that the numbers of homes in which you wish to have micropower installations equals the amount of finances being provided. At present, it is still just little pilot programmes.

[76] **Mick Bates:** Therefore, what you are saying, basically, is that the Government did not really work out how to do this, and just plucked a number out of the air. Is that right?

[77] **Ms Maby:** Yes. If we look at the low-carbon buildings programme, and the arguments that we have had with the Department for Business, Enterprise and Regulatory Reform over the last few years about the levels, it said that it is not actually a deployment programme, but still a demonstration, in effect. Therefore, it is not thinking in terms of a very widespread implementation; it is just a little drop in the ocean.

[78] **Mick Bates:** I see. Before we move on, you mentioned the finance. In your evidence, you have mentioned Kirklees council and a different way of financing. Could you put on the record how Kirklees council does that?

[79] **Ms Maby:** It is a new concept that has just been piloted. Essentially, the idea is to have a second charge on the home. With no interest payments or administration fee, the loan is around £10,000 per household and, at present, the local authority is offering that. Therefore, there is quite an issue about raising that capital. The money is not repaid until the home changes hands. On the home changing hands, the land registry will show up that this is the second charge. Therefore, you do not lose the link to repaying the loan; there is no risk from that point of view. However, there are other risks, of course, such as negative equity. The idea is that it is a revolving loan so that the money can come back through and be lent out again. The council has made estimates of how long the period will be between homes changing hands. The current average is seven years, but you might have a higher take-up of this type of loan from people who do not intend to move for the rest of their lives. It is a very interesting idea but it requires a massive injection of capital. In the longer term it may be more effective than grants, or will be a good complement to grants.

[80] **Mick Bates:** Alistair Darling seems to be investing all the capital in certain places nowadays. I will bring in Darren to speak briefly on this point.

[81] **Darren Millar:** We took some evidence from energy companies last year when we were looking at reducing carbon emissions from energy production, and they seemed to

suggest that they would be keen to have energy from microgeneration installed in people's homes and to finance that up front in order for the installation to be made. Do you think that that is a way forward? If you do, how do you suppose they will be able to encourage people to take that up? They were talking about not having a financial incentive in terms of an immediate reduction in the energy bills for those people who allowed microgeneration to be installed, but obviously there would be a payback at some point in the future.

[82] **Mr Draisey:** Microgeneration represents a huge threat to the utility companies if we reach the targets that we are aiming for. The companies make their money out of selling electricity. If you are generating electricity yourself, using natural resources, it poses a huge threat to the companies that are selling electricity to you, which is why their tariffs reward export, not generation, in the mainstream. They do not encourage you to use less of the electricity that they buy from you. However, they will pay you for the green electricity because they also want to fulfil their obligation in that regard. There is a marked difference between how they go about the microgeneration electricity market and how other companies such as Good Energy and Ecotricity, which use a completely different model, do so.

[83] I am naturally cautious of these giant electricity companies setting out a policy whereby they would have control of the finance element of microgeneration. I think that they are moving into the market because they can see that the demand is there. They are like any other company: where there is demand, they will invest and innovate. I think that we will see more general investment in renewable energy, even with times as they are. As a business, we are seeing that now.

[84] **Darren Millar:** If there were an obligation for energy companies to generate electricity from micropower in people's homes, that could help to prime the pump and bring the cost down for these technologies so that the payback time is better and therefore stimulates the market.

[85] **Mr Draisey:** Absolutely. However, a warning shot that I have had fired across my bow in discussions with utility companies recently is: 'Windfall taxes, renewables obligation, and the need to invest in new energy infrastructure—do not think about giving us any more to deal with because we are fully stoked at present'. That is what I have heard. I do not know what you heard when they gave evidence to you, but that is what I have heard in the last six months from two utilities companies.

10.00 a.m.

[86] **Mick Bates:** There is a big question about costs. Leanne, would you like to come in on the subject of barriers?

[87] **Leanne Wood:** No. Nobody has addressed the question of measuring the installations, so I—

[88] **Mick Bates:** Okay, carry on.

[89] **Leanne Wood:** Can any of you talk about that?

[90] **Mr Carter:** Perhaps one of the problems is that there is major consideration given to measuring everything. You just referred to some pretty aspirational targets. Given the speed at which progress is being made, those targets are just aspirations, because, in order to get anywhere near them, we will have to make radical changes—I think that those are the words that Ian and Catrin used. We need a radical deployment; things need to start happening on the ground now. What seems to happen every time is that we get a new set of targets or a new strategy is written and, by the time that process has been undertaken, you are 50 per cent of



the way down the road towards the time for meeting your target. We would probably be better off just getting on with things, removing the barriers, and implementing changes. I am sure that Ian would love to go out and install as much as possible, and he could come back with a count for you quite easily. From our position, 'How do we go about counting them?' is the wrong question—I think that we would be better off asking, 'How do we go about installing them?'. We will then install as many as we possibly can. Then, in 2012, we can count them and see how we got on. [*Laughter.*]

[91] **Mick Bates:** Excellent. Catrin, perhaps you could come in very briefly, because I want to look at planning, barriers and grants.

[92] **Ms Maby:** In relation to measuring—and I have been involved in this dilemma on the other side of the border—one issue that you need to address very early on is the mystique around data protection. The only way that you can add different sets of data from different sources is if you have unique references to the different properties and, very often, commercial companies will not give out information. Even local authorities misunderstand this. They think that addresses are personal data, and they are not. Not having that information means that you cannot add the number of installations from last year to the next year, because there could be an overlap.

[93] **Mr Tomos:** On mapping, I am a voluntary director of Pembrokeshire Local Action Network for Enterprise and Development, which has mapped out where all the renewable generation is currently being produced in the community. That information exists on that website. So perhaps we should look at rolling out that, as something that works in one county, to other counties and collating that information.

[94] **Rhodri Glyn Thomas:** Hoffwn ofyn cwestiwn i Richard am y broses gynllunio. Bu ichi amlinellu'r problemau yr ydych wedi'u cael gyda'r parc cenedlaethol ynglŷn â chynllunio. O'm profiad i o'r parc cenedlaethol, credaf eich bod wedi cael amser eithaf rhwydd ganddo. Yr wyf yn siŵr bod Mick wedi cael yr un profiad â mi ynglŷn â phroblemau gyda chynllunio a'r parc cenedlaethol yng nghanolbarth Cymru. Er ichi amlinellu'r problemau, nid ydych wedi dweud wrthym beth yn union y gellid ei wneud o ran y broses gynllunio i hyrwyddo prosiectau adnewyddu ledled Cymru. A oes gennych unrhyw arweiniad y gallwch ei gynnig inni ynglŷn â'r hyn y gellid ei wneud i wneud y broses yn rhwyddach ac i hwyluso'r math hwn o ddatblygiad?

**Rhodri Glyn Thomas:** I would like to ask Richard a question on the planning process. You outlined the problems that you have had with the national park regarding planning. From my experience of the national park, I think that you have had quite an easy time of it. I am sure that Mick has had the same experience as me as regards problems with planning and the national park in mid Wales. Although you outlined the problems, you have not told us what exactly could be done with the planning process to promote regeneration projects throughout Wales. Do you have any steer that you could offer us with regard to what could be done to make the process easier and to facilitate this kind of development?

[95] **Mr Carter:** There appears to be a distinct reluctance, politically, to grant permission to what are perceived as contentious projects. We are always working on waste-related projects, and that always appears to generate opposition. The appeal process is a 14-week process, and that, in itself, is almost a barrier, because, if a developer has submitted an application, the authority will say, 'We are going to postpone your determination for another four weeks', and it will think, 'We will wait until next time, because there is a 14-week process for an appeal', and then you get the next one. That time could do with being reduced significantly.

[96] One of the barriers is the local aspect of the determination, because we have a

national and international problem in climate change and yet there is a barrier created by local opposition, basically, with councillors saying to proposed developers, 'If we had supported your project we would not have got through'. So, there are barriers locally that are in opposition to our strategies on a larger scale. There needs to be a mechanism whereby these energy projects are, possibly, given a different planning stream to follow or the appeals process is different. We cannot apply pressure to a planning process through the Department for Environment, Sustainability and Housing, because it is part of the appeals process. So, you are in a position of not knowing who to talk to to speed up the process, rather than going for a 14-week appeal.

[97] There also needs to be a lot of education within planning departments, not just on the technologies, which may be new to them, but also on what the ultimate goal is. Your planning process should help us to achieve your ultimate goal, rather than trying to find problems and raising objections and causing things to take a year longer than they would otherwise have done. Planning departments should be part of the process in helping and facilitating, and not be an obstacle.

[98] **Mick Bates:** I will just come in with a comment, because while time is pressing, this issue is critical. The length of time taken for a planning process appears to depend greatly on the environmental impact assessments and the need to ask all of the statutory authorities to provide a detailed statement on any individual planning application. Is it possible that some protocol could be put in place, if the application is a particular form of any energy generation, which states that these issues—if it is animal health issues, say, with anaerobic digestion—are recognised by the Government and therefore planning authorities have such and such advice? In that way, all of the environmental impact assessments relating to animal health could be done on a national scale. However, there must be a local democratic input, which would be about the individual circumstances of the application, taking into account the location, boundaries, the historic heritage, and so on. Is that achievable?

[99] **Mr Carter:** These types of initiatives must be achievable. For instance, the Countryside Council for Wales, as the land policy manager, would say that it is in favour of anaerobic digestion, yet every time it is consulted on anaerobic digestion it must educate an officer about it, whereas if it were a case of, 'Let us just look at this locally because, in essence, we support these developments', it might be better. However, there is always a consultation on it, and that also takes a long time. The Environment Agency takes a long time to respond and it should be much faster. It would be better if there was an approach of 'in principle, this is okay, subject to regulation'. Generally, the Environment Agency when it responds, says, 'We will be in favour of this subject to regulation', but it takes 10 weeks to get that response.

[100] **Mr Draisey:** This is where we are missing a trick. We have already grabbed the bull by the horns with technical advice note 8 and taken a strategic approach to windfarming in strategic areas. That should be and has been applauded by other areas of Europe, but we are missing a trick on a local level, because we have opportunities for anaerobic digestion and there are micro, hydro, small-scale wind, and community heating opportunities. However, it is like rolling a boulder uphill on every project, and you need hundreds of people rolling that boulder up the hill. You can talk on a local level—the Environment Agency is a very good example—but with hydropower you get nothing but support on a local level talking about a single abstraction, but the weeks and months tumble by. You talk to the Distribution Network Operator about grid connection, and the weeks and months tumble by. You cannot get your project moving in Wales.

10.10 a.m.

[101] **Mick Bates:** Brynle, I will bring you in next, and then Richard and Catrin. We are

getting to the nitty-gritty of the issue.

[102] **Brynle Williams:** I am in agreement with you on this, Chair. We have the agreement at the local level, but do you think that we are not getting enough leadership from the top? Richard went through this during his own process, and the first thing that he did was get the support of the community. How? By taking the initiative to call a public meeting. Everything is there, but, as in your case, Richard, as soon as you get higher up the ladder, there is a problem. How do we address that problem?

[103] One of you gentlemen and Catrin said in your opening statements that, if we can, saving is more important than producing. We have issues with Cadw and with local councils. For example, you cannot put double glazing in old farm houses, which are the very buildings that we are looking at. How do we get around that? We need to go further up than us; we need to go to Ministers, but the question is how do we get to them.

[104] **Mick Bates:** I see that Richard and Catrin are itching to answer this question.

[105] **Mr Tomlinson:** Brynle, the only pressure that we found we could bring to bear on planners was public opinion. You can never underestimate the power of public opinion over planning authorities, and that was the trump card for us without a doubt. The public generally wants to embrace renewable electricity and saving energy. It is in everyone's mindset and they desperately want to do it.

[106] The other problem that we have is power. Once these renewable energy facilities are in place, they need to be connected to the national grid, but, as Ian said, power companies do not want to help you. We had to spend £4,000 just to get on the list for a grid connection. We have now received a statement stating that we will be charged £26,000 to be hooked up to the grid—and that is on a reasonable sized power output. On smaller projects, that £26,000 cost would blow them out of the water; it is too big a cost. In Germany, if you put a renewable generation facility in place, the power companies are obliged to connect you to the grid at their cost. There is no charge, and that is what desperately needs to happen in Wales.

[107] **Ms Maby:** I know that there is a commitment to zero-carbon housing in new developments, and, to achieve that, I suggest that you take the TAN 8 approach a little further and look at mapping housing need against sites that have the opportunity for on or near-site generation. You can do that proactively, rather than leave it as a frightening and difficult dilemma for local authorities to work out how to achieve.

[108] It is more complex for existing buildings. The points have been made about the need for streamlined financial packages that are clear and make sense to people, and there could be some further strengthening of what are known as the 'consequential improvement aspects' of building regulations—namely that, if you are carrying out certain works, you need to do other things—and of the controlled fittings, which means that you cannot replace one thing with something of a worse standard. Certain aspects of that have a huge amount of power in renovation works, and could become even more important with people not buying and selling houses as much now, and so they are doing works on their existing buildings. Opportunities to vastly improve the energy efficiency of existing buildings are being lost all the time. It is a basic, practical issue.

[109] **Mr Draisey:** To respond to Brynle's question about our influencing change and getting to the top. From what I am hearing from the panel, that is a question for us to ask you.

[110] **Brynle Williams:** That is a fair point.

[111] **Mick Bates:** I like the concept about TAN 8.

[112] **Rhodri Glyn Thomas:** Credaf fod maes i'w gael yma sydd heb gael y math o archwiliad sydd ei angen arno. Yr oedd Cris yn sôn yn gynharach am y datblygiad cymunedol yn Hermon. Dywedodd eu bod wedi manteisio ar ddatblygiad masnachol ym Mlaenwaun, a bod hwnnw wedi rhoi'r cyfle iddynt ddatblygu cynllun cymunedol yn Hermon. Credaf y dylem edrych ar y cyfleoedd sydd gan gymunedau i fanteisio ar ddatblygiadau masnachol.

**Rhodri Glyn Thomas:** I believe that there is an area here that has not been given the degree of scrutiny that it should have been given. Cris talked about the community development in Hermon, and said that they had taken advantage of a commercial development in Blaenwaun, which gave them the opportunity to develop that community scheme in Hermon. I think that we should look at the opportunities that communities have to take advantage of commercial developments.

[113] Derbyniaf yr hyn a ddywedir am TAN 8. Nid wyf yn gwbl gefnogol ohono am ei fod wedi caniatáu llawer gormod o ryddid i gwmnïau masnachol benderfynu ar leoliad eu datblygiadau. Er bod elfen strategol i TAN 8, dylai wedi bod yn fwy strategol o lawer yn lleol, o ran union safle'r datblygiadau hynny. Mae cwestiwn y dylem ei ofyn ac mae'n debyg y dylem wneud ychydig o ymchwil yn ei gylch: sut y gallwn roi cyfrifoldeb i gwmnïau masnachol sy'n datblygu prosiectau ynni adnewyddadwy i sicrhau eu bod yn cynnig cymunedau ledled Cymru y cyfle i fanteisio ar eu cysylltiadau â'r grid cenedlaethol i ddatblygu prosiectau a fyddai'n cynnig budd ac elw yn uniongyrchol i'r cymunedau lleol hynny? Un broblem arall sydd gennym yw'r ffaith nad yw'r budd cymunedol o'r prosiectau hynny wedi'i glustnodi; y datblygwyr sy'n penderfynu pa fath o fuddsoddiad cymunedol mae am ei gynnig. Yr ydym wedi colli'r cyfle hwnnw, ond gallwn o leiaf roi rhyw fath o gyfrifoldeb cymunedol i ddatblygwyr a dweud, 'Os ydych yn cael cyfle i ddatblygu prosiect enfawr yn y fan honno a fydd yn dod ag elw uniongyrchol i'ch cwmni, mae cyfrifoldeb arnoch i gynnig cyfle i brosiectau cymunedol fanteisio ar y cysylltiadau sydd gennych â'r grid cenedlaethol'.

I accept what was said about TAN 8. I am not completely supportive of it because it has given commercial companies far too much freedom to decide on the siting of their developments. Although there is a strategic element to TAN 8, it should have been far more strategic locally, when determining exactly where those developments would be sited. There is a question that we should ask and we should probably do a little research on it: how can we make commercial companies that are developing renewable energy projects responsible for ensuring that they offer communities across Wales the opportunity to exploit their connections to the national grid to develop projects that will bring benefits and profit directly to those local communities? Another problem that we have is the fact that the community benefit from those projects is not earmarked; the developer decides what sort of community investment it wants to make. We have missed that opportunity, but at least we can place some sort of community responsibility on developers and say, 'If you are given an opportunity to develop a huge project in this area that will make a direct profit for your company, you will have a responsibility to give community projects the opportunity to exploit your connections to the national grid'.

[114] **Mick Bates:** Cris, do you have anything to add to what we just heard from Rhodri about community developments? We will then turn to Ian for a final comment.

[115] **Mr Tomos:** Byddwn yn dweud bod cyfrifoldeb ar gwmnïau yn bendant, wrth i gyfrifoldeb cymdeithasol corfforaethau ddod yn fwy amlwg. Pe bai cwmni mawr yn datblygu elfen o ynni, byddai'n dda pe bai etifeddiaeth i fuddsoddiad y cwmni hwnnw ar ffurf gallu'r gymuned i gysylltu â'r grid

**Mr Tomos:** I would certainly say that companies have a responsibility, as corporate social responsibility is given more prominence. If a large company is developing an energy component, it would be great if that company's investment had a legacy in the form of the community being able to

drwy'r cynllun. Yn y pen draw, byddai'r arian hwnnw ar gael i'r gymuned yn barhaol. Byddwn yn bendant yn croesawu datblygiad o'r fath. Byddwn hefyd am weld cymunedau yn gweithio gyda'r cwmnïau mawr sy'n dod â ffermydd melinau gwynt i'w hardaloedd.

connect to the grid through that scheme. Ultimately, that money would always be available to the community. I would definitely welcome such a development. I would also like to see communities working with the large companies that bring windfarms to their areas.

[116] **Mr Draisey:** On manufacturing, we have just seen a tile manufacturer leave Scotland because of the pace of development. We nearly lost windfarming completely in Wales because of the barriers that were put up. There are differing opinions on this and this is not the place to hear them, but just in relation to industry, we nearly lost windfarming. It very nearly became too difficult to develop windfarms in Wales. On your renewable energy targets, if you are talking terawatt hours—with respect to microgeneration and all other parts of the debate—we need wind. If we are to reach those targets, we need wind, and we nearly lost the lot because it became too difficult. I know that from experience.

[117] We are working on a site in area D with one of the large utility companies, and probably five years before there is any prospect of seeing a wind turbine built there, we have a community officer in place, working at grass-roots level with the community. That officer is funded and is looking for opportunities for community development on the back of one renewable energy project. It has the potential to facilitate projects and to provide the funding that is lacking from central Government to see a plethora of smaller community projects develop. That is the model that I think can be successful.

[118] The other warning shot that I should fire is that there is no money out there any more, and it is a risky business. There are huge risks involved in building windfarms and if you pare too much of that cash at the early stage, you will jeopardise the project, and there is only so much community benefit that the financing models can take. You have to appreciate that, at the strategic level.

[119] **Mick Bates:** On that point, we will look at the development of wind power specifically in a future meeting.

[120] **Mr Tomos:** I think that it is also important to give examples of best practice, of where windfarm companies are supporting communities. Our example, in Blaenwaun with Renewable Energy Systems Ltd, is that it is supporting a community festival that we started. Five years ago, we had 400 people turn up; this year, 8,000 people turned up. The local windfarm company has supported us with sponsorship.

10.20 a.m.

[121] **Mick Bates:** Thank you very much for that information. Thank you all for your written evidence and particularly for your statements and answers to the questions from Members. It has been extremely useful to us, and I am sure that, when we examine the Record, we will see that you have set a radical agenda for us if we are to get anywhere close to meeting the targets. We will send you a copy of the transcript, and please feel free to provide any further information.

[122] **Darren Millar:** Chair, may I ask that we write to the Minister with some of the questions about the proposed changes to the planning system, on permitted development and Merton-plus-type rules, just to get some feedback on those?

[123] **Mick Bates:** That is a very good point. Thank you, Darren.

[124] Ian, you may remain at the table for the next session with Nick Tune. You are all welcome to stay to listen. Our public gallery is over there. *[Laughter.]*

[125] **Darren Millar:** *[Inaudible.]*

[126] **Mick Bates:** We may as well have this discussion on the record, Darren. All the permitted developments are listed in the research paper, which is useful.

[127] **Darren Millar:** Yes, I know. It is a very good paper. I was just saying that, when we ask the Minister for further evidence on the proposed changes to the planning system, it is important that we also ask about the prospect of off-grid developments. Connection to the grid is clearly an issue, and so, if we can permit off-grid developments in communities, such as combined heat and power plants, which we saw when the committee went to Austria, it would cut out a huge cost and take away a whole barrier to generation.

[128] **Mick Bates:** Where microgeneration is installed, the power company could be obliged to provide a connection to the grid at their cost. That is the key.

[129] **Darren Millar:** However, you would still have the problem of that being a barrier, but off-grid generation can provide energy exclusively for a community without needing a grid connection. I accept that that is far easier to do with new developments, but there are opportunities there.

[130] **Mr Draisey:** That is a bit like making me pay to cut half my phone lines at Dulas so that customers cannot get hold of us. *[Laughter.]* The utility companies make their money by selling energy, so making them pay to connect renewable energy projects to the grid doubles the disincentive for them. In addition, given what we know about district heating particularly, it will be difficult to find the right model to suit communities.

[131] **Mick Bates:** Absolutely. Thank you for that.

10.21 a.m.

**Ymchwiliad i Leihau Allyriadau Carbon Cymru: Sesiwn Dystiolaeth ar  
Gynhyrchu Ynni  
Inquiry into Carbon Reduction in Wales: Evidence Session on Energy  
Production**

[132] **Mick Bates:** This item is to look at the operation of the low-carbon buildings programme. I welcome, as witnesses, Nick Tune, Monika Munzinger, and Ian Draisey again. I invite you to make opening statements of about three minutes and to introduce yourself and your positions for the Record.

[133] **Mr Tune:** Hello, I am Nick Tune and I am director of the Building Research Establishment Wales.

[134] **Ms Munzinger:** I am Monika Munzinger and I am programme manager at the Building Research Establishment in Garston.

[135] **Mick Bates:** Thank you. I now invite you to make your opening statements about the operation. We have your presentation and we have also just received another paper.

[136] **Mr Tune:** I will pass you on to Monika in a minute. Some of you might know that we currently run phase 2 of the low-carbon buildings programme on behalf of the Department

for Business, Enterprise and Regulatory Reform. I will now pass you to Monika to give you some statistics on where we are in Wales. Do you want to do it by way of questions and answers?

[137] **Mick Bates:** There will be questions to follow your brief opening statement.

[138] **Ms Munzinger:** I managed a programme for BRE, and I have given you the statistics for the programme, which has been running since December 2006. The statistics given are from yesterday, and they show that we have allocated about £17 million of the £48 million. There is a breakdown of technologies and the majority of the funding has gone to photovoltaic technology, and the other technologies are trailing behind quite a bit. As you can see, the second graph that I have given you gives the allocation per pot, and each technology has a set amount to spend on other programmes.

[139] Photovoltaic technology has reached just over 70 per cent now. If you look at the other graphs that I have given you, which were taken from the end of August, you can see that the other technologies have picked up a little since April, because the grant levels have increased by 50 per cent. Therefore, PV had 50 per cent from the start of the programme, so now all the technologies have 50 per cent, which seems to have supported them quite a bit. I have also given you a graph of allocation per organisation. Housing associations, local authorities and schools are doing well. Wales got the highest allocation per country, compared with Scotland and Northern Ireland, so we are doing pretty well.

[140] **Mr Tune:** I have one quick closing remark. We have a pot money, and we want to get rid of it. The match funding element is for local authorities and housing associations, and I believe that that is what is holding us back. To some degree, even knowledge of the programme needs to be increased, so that people know about it. I see people applying for Heads of the Valleys grants—and I also work for the Heads of the Valleys programme—without even applying for the low-carbon building programme, but yet applying for money from us for renewable energy programmes. Those are some quick remarks, but I have many other points that can be discussed.

[141] **Mick Bates:** Thank you for your presentations and for the figures. How do you go about publicising your grants? We have already heard this morning from other installers that there is a massive issue around getting the money, and the match funding. Could you explain how you publicise that, and who gives the advice to find the match funding?

[142] **Ms Munzinger:** Because of how the programme was set up by the Department for Business, Enterprise and Regulatory Reform, and the use of the seven framework suppliers, we as the Building Research Establishment do not have a separate budget to market the programme. We ran events in May and June across the UK to promote the programme, which were very successful—each event was booked out. Following that, we have seen an increase in enquiries and website hits. The way that DBERR saw it is that the framework suppliers, because they are so wide reaching, through and with the installers, will also promote the programme.

[143] **Mr Tune:** The point is that we do not have the marketing budget for it. You say that DBERR might have thought that framework suppliers do—and I know that Ian and Dulas push as much as they can—but something should be addressed and pushed on that issue.

[144] **Ms Munzinger:** As BRE we publish our own newsletters to the construction industry and other relevant industries.

[145] **Mr Draisey:** To add to that, no budget was made in the tender. We went through the tender process and DBERR made no provision. In fact, during the interview sessions that we

had with them in the pre-tender phase, it was suggested that the marketing would be dealt with and that we should not account for that in the prices that we had submitted. We submitted prices that we had to hold, unless there was ‘significant change’—I forget the exact term that they use now. We are held to the prices that we submitted under tender, for the duration of the low-carbon building programme. It is also worth pointing out the end dates, given that £31 million is unallocated out of a total budget of £50 million. You have nine months—until the end of next June—to spend £31 million.

[146] **Mick Bates:** So what are you suggesting? What would you like to see happen? You have nine months, so what timescale do you suggest is more realistic?

[147] **Mr Draisey:** The timescale, unfortunately, is not within the framework or the suppliers’ control—oh that it was. [*Laughter.*] What I would like to see, first of all, is an awareness in Wales; we are already doing pretty well by the sound of it, but we should just get a big bell and ring it loudly. We are doing our best, but we only have a certain amount of resources. The state of the euro means that we are not making very much margin, but that does not mean to say that we do not want to keep doing business. However, we need to ring the bell high and loud. Only yesterday, I spoke to the energy manager in a local authority who showed no interest, not just in the low-carbon building programme, but in renewable energy for schools or his local authority’s estate. There was no sense of urgency and no accord with the priority that we are talking about in terms of targets.

10.30 a.m.

[148] **Mick Bates:** That was where I was going next. Rhodri, you have a question.

[149] **Rhodri Glyn Thomas:** I have a couple of questions on the basis of what you have just said. What happens to the £31 million if there is no take-up by June? Does it roll on, or do we lose it completely?

[150] **Ms Munzinger:** We do not know. It is up to the department, but we will ask for an extension to the programme. The continuity of grant programmes is important, namely ensuring that something is in place for much longer than is now the case.

[151] **Mr Tune:** May I also answer that?

[152] **Mick Bates:** Could we just have an answer to the point about extension? That is why I was asking about the time of this. It is possible to apply for an extension, but for how long?

[153] **Ms Munzinger:** I do not know. We have to talk to the department and lobby on it.

[154] **Mick Bates:** This is like operating in chaos. You have £31 million, but you have little time in which to spend it, and you do not know whether you can extend that time.

[155] **Ms Munzinger:** Our deadline is the end of June next year.

[156] **Mr Tune:** We have to go back to DBERR to try to get an extension.

[157] **Mr Draisey:** We have already asked. There are points to be clarified, for example, it is not exactly clear when the end date of the contract is. Our contract has an end date, but it does not concur with BRE’s contract, and it does not concur with the programme dates that were announced at the start of the programme. So, there is a little confusion, but we have asked the question. We have also asked for a virement of the money in the pots, because big mistakes were made in the design of the programme. As you can see from the technologies that are bumbling along at the bottom of the graph, mistakes were made in the specification of



which technology should be included at what funding rates. That was addressed slightly in April—goodness knows how far along the graph that is—but they are still not setting the world alight, and we need to see more pots going into photovoltaics, which are clearly easier and quicker to install. That is one solution; there are a number of others.

[158] **Mick Bates:** Policy is in a different area. It is about the process by which you operate the scheme. I am surprised that the contract seems to be open—

[159] **Mr Draisey:** It is Treasury money; therefore it is on a three-year funding round, which has a finite end date. The message that I think that we are getting is that the Treasury could do with a bit of the cash back, so it is not working too hard on ways for it to leave the Treasury.

[160] **Mick Bates:** This is something to write to the Treasury about, to clear it up.

[161] **Mr Tune:** Perhaps I can tell you what we are trying to do, and I can only speak for the Heads of the Valleys region, where I am working hard to try to increase the amount of low-carbon building programme money that we get. Most of the work that I am doing for the Heads of the Valleys is on fuel poverty. We are trying to do as much as we possibly can, which means that I am trying to get as much money in from the low-carbon building programme as possible. I have an allocation from the Heads of the Valleys programme to put into match funding the low-carbon building programme via housing associations, and we are looking at starting with a big scheme with RCT Homes, but we have also put in an application for money from the strategic capital investment fund to try to eradicate fuel poverty among people living in social housing in the Valleys. We costed it for 44,000 people living in social housing. Unfortunately, our application to SCIF was not successful, although it came back with a relatively positive note. However, there are opportunities with potential match funding, as we have found in Northern Ireland. We cannot match funds directly, but we can match-fund via third parties, such as housing associations and so on. We, in the Heads of the Valleys, also see that there is an opportunity for business development in this. Therefore, I am trying to get as much match funding money together as possible to get this money spent in the areas that need it. The more that we can do with that, from the Welsh Assembly Government's view, the more that we will spend.

[162] **Mick Bates:** We have a paper from Northern Ireland. There, 15 per cent was put on top, centrally.

[163] **Leanne Wood:** I have a specific question. With regards to RCT Homes, what you are doing sounds great, but RCT Homes will presumably be reliant on borrowed money to match-fund. With the economic crisis that is facing us, do you envisage that that will be a problem?

[164] **Mr Tune:** It will not be borrowing anything, because, to some degree, we are match-funding via the Heads of the Valleys programme to the tune of the low-carbon building programme. We will also bring in the carbon emissions reduction target moneys, so we are multiplying the pot by two and a half.

[165] **Mick Bates:** So, you have a 100 per cent grant, do you?

[166] **Mr Tune:** We could have, potentially.

[167] **Ms Munzinger:** We already have that in England.

[168] **Mick Bates:** Yes, that is the point.

[169] **Ms Munzinger:** It is money from the Big Lottery Fund. Apparently, it is not possible

to do the same in Wales.

[170] **Mr Tune:** I tried to apply for it, but it would not do it.

[171] **Mick Bates:** There was a critical point in your presentation about this; we cannot match-fund from the Big Lottery Fund here. Why is that?

[172] **Mr Tune:** I applied to the Big Lottery Fund, but it told me that Wales has its own programmes, and it did not want to do it in Wales.

[173] **Mick Bates:** I see.

[174] **Leanne Wood:** Could we find out more about that?

[175] **Rhodri Glyn Thomas:** We should investigate why that is the situation. However, I would like to go back to Ian's point about his experience with the local authority and the lack of enthusiasm in terms of looking at using renewables for public buildings. The 'One Wales' commitment was to create carbon neutrality with regard to public buildings in Wales. Are you telling me that not only do we not have a hope in hell of achieving that, but that there is no movement towards even looking at achieving it?

[176] **Mr Draisey:** Far be it from me to suggest that the 'One Wales' document might be gathering dust on desks. However, you sense that it is not a priority when you talk to people at the coalface. I do not know how Nick feels, having talked to people about this.

[177] **Mr Tune:** I would not go as wide as that, Ian; it needs to be considered on a case-by-case basis. For example, Rhondda Cynon Taf submitted many applications for the Heads of the Valleys programme for funding for renewable energy in schools. I was horrified that not one of them mentioned match funding from the low-carbon building programme, because they were applying for Heads of the Valleys money directly. I was asked to comment on all of the funds; my reaction was that they should not be funded unless there is match funding through the low-carbon building programme. That was a scare. It needs to be considered on a case-by-case basis. The energy manager in RCT is very proactive.

[178] **Mr Draisey:** Gerald is fantastic. We could pick the names of five people who would be known to us all because of their proactivity. They are crusaders.

[179] **Rhodri Glyn Thomas:** We should not be depending on individuals.

[180] **Mr Draisey:** That point was made earlier, was it not?

[181] **Ms Munzinger:** Looking at the figures for phase 2, it looks like we have allocated £17 million; at that rate, we probably would not hit £48 million by the end of June next year. However, we have seen a considerable amount of allocation per month over the summer. It has jumped from £1 million per month to £2 million per month. I find that grant programmes always gather momentum after running for a year or so. Once they hit the peak, they have to stop. That is one of the biggest problems. There is a fast turnaround of applications at BRE. Things have been implemented to make the process quick and thorough with regard to the way in which payments are made, and so on. Microgeneration certified installers and products are used, and so on, and all of these things are in place to make it possible to allocate the money on time. However, it is all to do with promotion.

[182] **Mick Bates:** We will come to payment in a moment. We have heard evidence already that problems are caused for installers in that regard. Leanne, do you want to come in on this?

[183] **Leanne Wood:** No.

[184] **Mick Bates:** Lesley, I think that you have some questions on this.

[185] **Lesley Griffiths:** Thank you for these statistics, Monika. Could you please tell us a bit more about the take-up of the programme in Wales and how we compare with the rest of the UK?

[186] **Ms Munzinger:** I think that the statistics speak for themselves. Promotion really works. We have run some events. If you think that it would be helpful, we could run an event in Cardiff and promote it that way. It really resulted in a lot of take-up.

[187] **Mr Tune:** From my point of view, with regard to BRE Wales, I want all of the money to be spent in Wales.

[188] **Lesley Griffiths:** Of course.

[189] **Mr Tune:** I will do whatever I can to make that happen. However, we need a budget to market it; I cannot do it with thin air.

[190] **Ms Munzinger:** I apologise, I could have looked at the statistics regarding ongoing applications and at how many are ongoing in Wales, but I forgot.

[191] **Lesley Griffiths:** Okay. I was going to ask you whether you think that we should ring-fence regional allocations, but you said in your presentation at the beginning that, in Wales, we do very well and that, of the countries of the UK, we get the most.

[192] **Ms Munzinger:** In the handout, I have given you the statistics for Scotland and Northern Ireland.

[193] **Lesley Griffiths:** So, you would not particularly want to see allocations being ring-fenced?

10.40 a.m.

[194] **Ms Munzinger:** You want a spread across the whole of the UK, because in England there is a tendency to spend all the money in the south. There are many applications from the south-west and the south-east, particularly for solar and solar thermal. So, if you wanted to make that a priority—

[195] **Lesley Griffiths:** Do you think that it is the same in Wales?

[196] **Ms Munzinger:** No. I think that Wales is better at this.

[197] **Mick Bates:** Someone mentioned earlier how Germany had made massive advances in the installation of photovoltaics; is it possible that this programme could have the same impact in Wales?

[198] **Mr Tune:** I can answer that straight away—we do not have the feed-in tariffs that are vital to that. My big issue with the low-carbon buildings programme is that people do not necessarily always get the right renewable energy technology. Ian will probably not agree with me on this.

[199] **Mr Draisey:** No, I do not.

[200] **Mr Tune:** A lot of PVs are installed, but that is not necessarily the best way to spend the money—in some cases it is, but not in most. If you were spending in terms of carbon saving per buck, you would not go for photovoltaics. I think that there is an issue with the low-carbon buildings programme, in that, if you go to a supplier who only does wind or PV, you will most probably end up with that technology. So, the single point of contact in terms of technical advice on which renewable energy route you go down, does not currently exist. Some partners like British Gas offer everything, but they are the only ones. You may get some level of independence from them, but I think that that is the issue in terms of the spend profile that does not necessarily sit well.

[201] The other issue is biomass, which is currently being pushed by the Welsh Assembly Government, particularly by the Department for the Economy and Transport, as a way of achieving the 3 per cent year-on-year reduction in zero-carbon housing, but that is not covered by the low-carbon buildings programme. In other words, you can only do 45 kWh, which is three houses—that is nothing, and it will not meet your 3 per cent year-on-year reduction target in terms of zero-carbon housing. That is why PV is the technology that is used: as Ian said, it is quick and easy. It is as simple as that.

[202] **Mick Bates:** This inquiry is about carbon reduction and what you are saying is that these technologies do not come with a carbon appraisal.

[203] **Ms Munzinger:** They do. When people apply, they have to state how much they will generate each year and they are measured against a benchmark and in terms of value for money.

[204] **Mick Bates:** If it is done for value for money, why is PV the most popular?

[205] **Ms Munzinger:** I think that, as Nick said, people choose PV because it is easy to install. If you are a school that wishes to opt for biomass, you probably need a boiler that is bigger than 45 kWh and that is limited by the Energy Act 2004. The microgeneration definition does not allow for larger boilers or ground-source heat pumps to be used and funded as part of the programme.

[206] **Mick Bates:** Going back to carbon appraisal, Nick, do you have a table that indicates what is the most cost-effective form of microgeneration?

[207] **Mr Tune:** Yes, it is quite easy to give you rough figures on that. It is done on a case-by-case basis and giving you the carbon saving per technology is not rocket science. For example, DET has done it on a big scale on master plan sites. Biomass is the cheapest way to reduce carbon every single time. However, that is not necessarily the best way of tackling this, because there is a serious issue in terms of all master plan sites in Wales having a biomass CHP plant; there is an issue around biomass, but that is a different conversation. As Monika said, the clients are quite happy with what they are getting, but the client cannot compare biomass, solar, water and PV because they do not have the knowledge; if they have a PV system and it is generating some electricity, then they are happy. However, that does not mean to say that it is the best in terms of carbon saving.

[208] **Mick Bates:** So, before we leave this point, what is the hierarchy? Which of these technologies, in your opinion, is the best?

[209] **Mr Tune:** None of them; they are all important, but if I were doing something through the Welsh Assembly Government and if you want to make carbon savings, I would change the carbon energy reduction target to cover insulation of solid-wall housing. We worked out that, if we insulated 30 per cent of the solid walls in the Heads of the Valleys, we would save 15 per cent of all carbon generated in the Valleys. I am sorry—I have thrown you

a curveball there by coming up with something completely different.

[210] **Rhodri Glyn Thomas:** That is over and above what you are doing in terms of production, is it not? The danger is that you are seeing energy savings as an alternative to production—it has to be over and above what you are doing in terms of production.

[211] **Mr Tune:** The two go hand in hand, and both are vital, but energy reduction is the first thing that you do, before energy production. I think that the low-carbon buildings programme is a vital programme, but if we want to save carbon in Wales, there are other measures that must sit with it. We need as much renewable energy as possible, linked to the use of moneys from other programmes such as this one. Gordon Brown has issued more money for CERT, but CERT strangles us in Wales—we cannot spend it, because we have so much solid-wall housing that the programme does not fund.

[212] **Mick Bates:** That was very useful. You have mentioned your project in the Valleys. Could you send us further information on that?

[213] **Mr Tune:** Yes.

[214] **Mick Bates:** That would provide us with excellent evidence. We have recommended previously that retrofitting is a very important process and that would provide us with evidence on that. Darren, I think that you wanted to come in.

[215] **Darren Millar:** I would like to pursue the issue that you raised, Nick, about the advice that people are getting. There is no mechanism for independent advice within the low-carbon buildings programme, which means that people very often go directly to a supplier and, of course, that supplier conducts an independent assessment of whether their technology might be appropriate for that property. That worries me, because surely there need to be safeguards and a quality mechanism in place so that it can be appropriately audited to make sure that the advice is appropriate, even from a framework supplier. I would appreciate comments from both Ian and Nick, because I need some help on that.

[216] **Mr Draisey:** I will kick off by saying that I think that it is unlikely that you will see any of the framework suppliers appearing on *Rogue Traders*. I am quite serious in that. We consider ourselves to be the good guys out there in the industry and we were chosen because of our track record and our commitment to quality. Dulas only got three of the technologies because we only bid for three. We could see the weakness of biomass; we could see that it was not going to be taken up and that the way that it was delivered was not practical. We did not know enough about ground-source heat pumps because it is not an area of the industry that we are active in, so we bid for what we know about, which is small-scale wind. I gave you an example from my own school that even with an 18-month lead time for a 100 per cent funded project, with a crusader at the helm, it still has not got—

[217] **Darren Millar:** Forgive me for asking this, Ian, but if none of your technologies are appropriate for a property, to how many people who have come to you, asking for advice, have you said, ‘I am sorry, but we cannot help you because our technologies are not necessarily the best for your situation’? I suspect that it is a very small number.

[218] **Mr Draisey:** It really is not as simple as that. Due to the way in which this scheme has been designed, Dulas, on a daily basis, is doing feasibility studies and resource assessments, on a commercial basis, for a whole host of organisations. Nine times out of 10, those result in one of the technologies that are available through the low-carbon buildings programme being appropriate. It will not necessarily be a technology that Dulas provides, because we operate the consultancy in isolation from the equipment-supply business, which is the part of the business that Monika talks to on a daily basis; it is separate. We give impartial

advice to the organisations that come to us.

[219] **Darren Millar:** Do you charge for that advice?

[220] **Mr Draisey:** Yes, of course; it is a commercial venture. We have got what we have got. I think that we are all committed to delivering the low-carbon buildings programme, but it is what it is; we cannot go back and redesign it. No money was put in place for that feasibility resource assessment. We offer advice where we can, because our engineers are knowledgeable, about what the right technology would be. If the property was not appropriate for solar, for example, if we did not say 'no', Monika definitely would do. There are checks in place that mean that inappropriate installations are not undertaken. The carbon savings have to be above a benchmark for the project to go ahead. There are checks in place—that is what I am trying to say.

[221] **Darren Millar:** Forgive me for pursuing this, Chair, but I have had this problem, as I am sure have other Assembly Members. I have had constituents coming to me who have taken advantage of the low-carbon buildings programme and who have been given totally inappropriate advice. The problem tends to be around solar thermal heating. So, it is happening, is it not?

[222] **Ms Munzinger:** Phase 2 is for not-for-profit and public organisations and most of them will have undertaken some feasibility study before they applied—probably independently of the grant. Usually, they have an energy manager who knows a little bit about renewable energy, so they usually have a good idea about what is good and not so good.

10.50 a.m.

[223] Also, in terms of the framework suppliers and installers who are involved, this question has come up at nearly every event during the summer. Everyone in the industry says that they really cannot afford to have bad installations out there. During the application process, we look to see that it is cost-effective according to what was tendered through the framework suppliers, that they have done an options appraisal and considered energy efficiency measures. So, there is a process in place.

[224] **Darren Millar:** Nick, you are pulling faces; you are not confident that people are independent in giving advice when they have only certain technologies available.

[225] **Ms Munzinger:** The main point is that it is organisations rather than individuals; householders are less—

[226] **Darren Millar:** I appreciate that, but you are not confident are you, Nick? You raised this issue in the first place.

[227] **Mr Tune:** There are checks in place, and I do not want to go against BRE, because it is in my organisation. There are checks; value for money is checked, but that is done against baseline figures. I am not saying that they are wrong—they might be the right technologies—but I have come across situations where, for example, a housing association that wants to retrofit a block of flats thinks that solar thermal is the best thing, will contact, say, British Gas, which deals with all the technologies, and British Gas will put it in touch with the solar thermal supplier. Therefore, there is no stage at which it can be established that solar thermal technology is the right thing for that situation. The solar thermal company will then carry out a feasibility study, which it must do, and provide a cost appraisal, which it must do. BRE will look at that to see whether the cost appraisal fits within the scope, and the client might be totally happy at the end of the process, which is all well and good. However, I still think—

[228] **Ms Munzinger:** The application form asks whether they have carried out an options appraisal, and they must give the reasoning for choosing the technology or technologies that they are going for. Therefore, they must explain the thought process.

[229] **Darren Millar:** Yes, but there is an incentive for the individual conducting the assessment or the options appraisal to prefer a certain technology over another, because of the financial benefits that they may derive. As I understand it, you do not have a full auditing system in place to check that the technology is appropriate.

[230] **Mr Tune:** There is an auditing system to check as much as we can check. I am just saying that, in an ideal world, there would be a totally independent way of assessing what is the most appropriate technology; that would be perfect. However, I do not know whether that is practical, because there is a charge associated with Ian or BRE doing a feasibility study for renewable energy. I think that we have as many checks in place as we can. It is difficult, but there is no provision for an independent assessment.

[231] **Darren Millar:** I am simply suggesting that it is another barrier to microgeneration. Unfortunately, not everyone is as upright as your company, Ian, and there are some people out there who have taken advantage of individuals in the past.

[232] **Mr Draisey:** That is a different issue.

[233] **Darren Millar:** It may have happened outside the low-carbon buildings programme, but it gives the industry a bad name.

[234] **Mr Draisey:** There is no question about that. It is happening and on a very regular basis. I referred to *Rogue Traders*, because that is where I have seen them all appearing. We are very concerned about it, but we are limited as to what we can do about it.

[235] **Mr Tune:** However, that will not happen in the low-carbon buildings programme, because certain providers have been selected, so that is not the issue here.

[236] **Mr Draisey:** There is a much bigger problem, which is the hiatus that is about to occur. When the programme stops in June next year, feed-in tariffs will probably not be in place. We are quite optimistic, but no-one really knows that a feed-in tariff will come. I have been to two or three consultation meetings at the Department for Business, Enterprise and Regulatory Reform about feed-in tariffs and what they might look like, and even feed-in tariffs for heat, which would be fantastic for Wales. However, we are still looking at a hiatus between June next year and some time in 2011, probably, during which there will be no low-carbon buildings programme. In business planning terms, that is giving me a few headaches.

[237] **Mick Bates:** Continuity of funding is vital. From the Government's point of view, with such high targets for microgeneration, there must be continuity of funding. Surely this issue has been raised; why are people not planning to fill that gap? What reasons have you been given? You must have set out what the situation is.

[238] **Mr Draisey:** It is not only Dulas and other small companies, as the Renewable Energy Association has also been flagging this up. There are two key points of feedback about the low-carbon building programme. It has been flagged to us as the last major grant-funding programme for microgeneration, and it is the one where we have got it right. From the customer's point of view, it is really fast, really simple and it is administered really well—and I am not just saying that because BRE are here, as it really is. Monika alluded to that, and people recognise that we have got it right for once. It is a simple grant, with a decent level of funding at 50 per cent, and it is quick and simple—and it is going, and there is nothing to replace it. It is just typical.

[239] **Mick Bates:** You say that it is quick and simple, but we took evidence from the Severn Wye Energy Agency this morning about some problems. Darren, you have some questions about issues raised by Severn Wye.

[240] **Darren Millar:** There are certain problems with the grant programme, are there not? For example, there is the fact that value-added tax cannot be refunded by the grant. Then there is the issue that a large deposit needs to be made upfront to make it happen. How can those problems be overcome through some sort of support mechanism that the Assembly Government might be able to develop?

[241] **Ms Munzinger:** Under the programme, given the way that payments are processed, you can claim 50 per cent of the grant in advance if you have to pay a deposit or something. You send in an interim claim. That does help. We have paid nearly £5 million out, and we have probably had only three or four companies approach us to say that they could not afford to pay upfront before claiming the grant. So I do not think that it is a big problem. If it is, we are not aware of it.

[242] **Darren Millar:** What about the VAT element? Is that proving to be a barrier?

[243] **Ms Munzinger:** We do not get any complaints about that either. It has not been raised with us.

[244] **Darren Millar:** Clearly, VAT is a significant cost, is it not? Does it put some people off?

[245] **Mr Draisey:** It is 5 per cent for renewable energy.

[246] **Darren Millar:** But it can be a significant amount, if the installation costs are significant.

[247] **Mr Draisey:** Sure. A 50 kW photovoltaic array would be a big project, and 5 per cent of, in an extreme case, up to £300,000 would be £15,000. Finding that money is difficult, but finding 5 per cent on top of fundraising for the 50 per cent is not the biggest of the barriers to cross.

[248] **Darren Millar:** With regard to the range of technologies covered by the low-carbon buildings programme, you mentioned earlier, Nick, that some are outside its scope. How many inquiries do you get from people who want to install another form of technology, who you then have to turn down?

[249] **Mr Tune:** It is not so much about other technologies as such. The biggest issue is the limit to the size of scheme—45 kW for biomass. To give you a quick example, for housing associations that is just three houses. Newport old town dock is going for the biggest co-fired scheme in Wales. The scheme organisers approached us about a low-carbon building programme, and asked us what we could give them. We said, ‘Well, we will do three out of your 122 units’. So that is the biggest barrier.

[250] **Mr Draisey:** We operate a biomass business at Dulas, and our target market is from 15 kW small log boilers right the way up to biomass projects of 1 MW in size. The key market, however, is the 50 kW to 250 kW market. If the low-carbon building programme limit had been set at under 300 kW, it would be up there with photovoltaics.

[251] **Ms Munzinger:** It was supported by the clear skies programme, which was the precursor to the low-carbon buildings programme. BRE also administered that, and under it,



biomass and grants for heat pumps, after solar thermal, were the most popular technologies, but they did go up to 300 kW.

[252] **Darren Millar:** With regard to timescales for payments, you mentioned that deposits can be refunded, and the grant is paid out, but that is after the individual has already shelled out the cash, so there is a gap, is there not? Is there no way of overcoming that in the programme?

[253] **Ms Munzinger:** That is how the Department for Business, Enterprise and Regulatory Reform has set up the programme. We have to have evidence that the work has been commissioned, so we have to ask for supporting documents in the form of commissioning certificate pictures and paid invoices, and we can only pay out on that basis. DBERR did not want to give us the money upfront, so, once we receive a claim, we then have to claim the money from DBERR. Therefore, it takes between two and six weeks from asking it for the money to actually paying the client.

11.00 a.m.

[254] **Darren Millar:** That is pretty significant time if you have nothing in the bank.

[255] **Mr Draisey:** That is true for an individual. However, again, this is for charities, housing associations, and so on.

[256] **Ms Munzinger:** We have not had many complaints about it thus far.

[257] **Darren Millar:** These are issues that have been raised by the Severn Wye Energy Agency.

[258] **Mick Bates:** I see that Members do not have any further questions. I thank the three of you for your evidence this morning. I look forward to further communication. Some absolutely vital points have been raised, particularly about the fact there is no funding for the period up to 2011, which seems quite ridiculous given the high targets for Government.

[259] **Leanne Wood:** On that point, could we write to DBERR as a committee, reinforcing the arguments that have been put to us this morning?

[260] **Mick Bates:** Absolutely. That is a very good suggestion. Are Members in favour of that suggestion? I see that you are.

[261] **Leanne Wood:** Could we also write to DBERR on the point about virement?

[262] **Mick Bates:** Okay.

[263] **Mr Tune:** May I recommend one thing that would be fantastic?

[264] **Mick Bates:** Indeed. Go ahead; you are here for that reason.

[265] **Mr Tune:** It is the CERT issue and solid wall insulation. If there is anything that I would want the Welsh Assembly Government to lobby England on, if you like, it is CERT and us not being able to tackle our most fuel-poor homes.

[266] **Mick Bates:** Excellent. We have recommended that twice, by the way.

[267] **Mr Tune:** Keep recommending it.

[268] **Mick Bates:** Yes; we will do it again. In that case, on behalf of the committee I thank you sincerely for your written evidence and particularly for your presentation and answers to our questions. I hope that we can provide some answers for you too. Thank you.

2.11 p.m.

**Cynnig Trefniadol  
Procedural Motion**

[269] **Mick Bates:** To allow the committee to discuss the next item on the agenda, matters relating to the report on plastic bags, I propose that

*the committee resolves to exclude the public from the remainder of the meeting in accordance with Standing Order No. 10.37(vi).*

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

*Derbyniwyd y cynnig.  
Motion carried.*

*Daeth rhan gyhoeddus y cyfarfod i ben am 11.02 a.m.  
The public part of the meeting ended at 11.02 a.m.*