



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

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

**Dydd Iau, 1 Mawrth 2012**  
**Thursday, 1 March 2012**

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

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

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

Mick Antoniw	Llafur Labour
Yr Arglwydd/Lord Elis-Thomas	Plaid Cymru (Cadeirydd y Pwyllgor) The Party of Wales (Committee Chair)
Rebecca Evans	Llafur Labour
Vaughan Gething	Llafur Labour
Llyr Huws Gruffydd	Plaid Cymru The Party of Wales

Julie James	Llafur Labour
William Powell	Democratiaid Rhyddfrydol Cymru Welsh Liberal Democrats
David Rees	Llafur Labour
Antoinette Sandbach	Ceidwadwyr Cymreig Welsh Conservatives
<b>Eraill yn bresennol</b>	
<b>Others in attendance</b>	
Ewan Campbell-Lendrum	Infinis
Dr Aonghus McNabola	Prosiect Hydro-BPT, Coleg y Drindod, Duly Hydro-BPT project, Trinity College Dublin
Richard Rees	Rheolwr Gyfarwyddwr, Ynni Dŵr Gogledd Cymru Managing Director, North Wales Hydro Power

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

Alun Davidson	Clerc Clerc
Catherine Hunt	Dirprwy Glerc Deputy Clerk

*Dechreuodd y cyfarfod am 1.34 p.m.  
The meeting began at 1.34 p.m.*

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

[1] **Lord Elis-Thomas:** I welcome you to the meeting. I am sorry that it took us so long to get started.

**Ymchwiliad i Bolisi Ynni a Chynllunio yng Nghymru—Tystiolaeth ar Ynni Dŵr  
Inquiry into Energy Policy and Planning in Wales—Evidence on Hydropower**

[2] **Lord Elis-Thomas:** I welcome you to this evidence session on hydropower. To declare an interest, I live 20m above the upper reaches of the river Conwy, so I know what hydropower is like, day and night. It is a delight to have you here. Is there anything that you wish to add to the papers that we have been given already, before I bring colleagues in to ask questions? I see that there is not. In that case, I will start with a general opening question. Do you think that we are anywhere near to realising the potential of hydropower, especially on our upland rivers in Wales? If not, why not?

[3] **Mr Rees:** I think that the potential is definitely there. With regard to how far away we are from realising it, we are not far away, in that everyone knows about hydropower and likes it, and everyone wants to try to do hydropower. However, rules and regulations are being imposed that are preventing hydropower from being a widespread development across those areas of Wales.

[4] **Lord Elis-Thomas:** Would you like to specify? This is a very open-minded committee.

[5] **Mr Rees:** Flow splitting is the major issue, in that it dramatically reduces the returns in all hydropower schemes. Schemes that will be less profitable, because they might cost more to build, are not worth building. Farmers and landowners are businessmen like everyone else, and they will build a scheme only if it is viable. In order to make it viable, we need a better abstraction regime.

[6] **Lord Elis-Thomas:** So, if we were to recommend one thing to improve that situation, what would you want it to be?

[7] **Mr Rees:** We would like a system like the one in England and Scotland, whereby we leave a larger hands-off flow and abstract 100% up to  $Q_{mean}$ . The hands-off flow is the minimum flow that we have to sustain through the depleted reach. We would like to take 100% of the flow up to the  $Q_{mean}$ , rather than a percentage of the flow. Other parts of the UK can go beyond the  $Q_{mean}$  level. If we could go to  $Q_{mean}$  at 100% of the flow, it would be a huge improvement.

[8] **Lord Elis-Thomas:** Is this all down to the Environment Agency?

[9] **Mr Rees:** It is mainly down to the Environment Agency. Other people are affected more by the Countryside Council for Wales. Mainly, I am fine with CCW—I am battling with the Environment Agency.

[10] **Mr Campbell-Lendrum:** It is important to stress that Richard is looking very much at the smaller schemes, of 100 kW, and we are looking more at the bigger schemes. However, many of the problems that we suffer from are similar. There is a similar issue with flow splitting. There are complications with bigger schemes, because of arguments with CCW. However, if you compare the Environment Agency's approach with that of the Scottish Environment Protection Agency, and if you compare CCW's approach with that of Scottish Natural Heritage, they are dramatically different. While CCW and the Environment Agency very much look at the potential negatives of the scheme and do not look at the positives, SEPA and SNH take a much more rounded approach and look at the potential positives of a scheme, as well as considering the negatives. The upshot is that we find the climate for investment much more favourable in Scotland than we currently do in Wales. Wales has some of the best assets to offer hydropower, but, unfortunately, it is not realising those opportunities.

[11] **Lord Elis-Thomas:** It will not surprise you to hear that one of the banes of my life is to find that, whenever we talk about renewables, Scotland is doing better. I will not have Mr Salmond singing all the best tunes, especially on St David's Day. Do you wish to add anything from your side of things?

[12] **Dr McNabola:** From an Irish perspective, I can add only that the first I heard of flow splitting was when I read that submission. It is certainly not the case in Ireland either. It seems like an unusual practice to me.

[13] **Lord Elis-Thomas:** Would you like to tell us more about where you think that flows from, so to speak, in scientific terms, and whether there is any basis for it?

[14] **Mr Campbell-Lendrum:** I could try to answer that question. Although I am a hydro developer now, I am freshwater biologist by training. I did an MSc at Cardiff University about 20 years ago, and I spent my early career working on the rivers in upland Wales. I think that the thinking behind it is an idea of keeping a natural element to the rivers, and we are all in favour of that. I do not think that anyone would disagree that rivers are wild places and should remain so. The Environment Agency, I believe, is being overly conservative in trying to keep an element of naturalness throughout the flow range.

[15] The approach in Scotland, as I said, is a hands-off flow—that is, a flow below which you never take any water. That is either, in technical terms, the Q90 or the Q95; in simple terms, that means the flow that is achieved either one day in 20 or one day in 10 throughout a year. The thinking behind that is that, if you take the Q90, which is the flow that is exceeded nine days out of 10, you can work on the assumption that the biology in that river can cope with those kinds of flows, because it is a natural condition for that river. Then, up until the Qmean—that is, the average flow that is achieved in the river—if you take out that amount of water and then allow the spate to carry on beyond that, you still have a pretty wild environment, and you still have the big spates coming through that turn the stones over and keep it a wild environment, but you can get a reasonable amount of energy on a reasonably consistent basis.

[16] The Environment Agency, to be extra conservative, has then said, ‘Okay, in that gap between those two, the operator can take 40% of the water, and the river can take 60%’; a relatively naïve way to look at that is that it is a fair split, because you still keep some variation in that period in between. We would argue that that is taking out a good chunk of the energy that otherwise would be available for use, but without any real environmental benefit. There are numerous schemes in Wales that were built under a regime that allowed a 100% take between the Q90 and the Qmean. I have yet to see one that has been shown to have an adverse environmental impact. Theoretically there could be one, but I have yet to see a situation where there is.

[17] **Mr Rees:** You have explained that very well. On top of that, the Environment Agency lets us have the water we want, which is Qmean, but what we are debating is when it lets us have that water. It makes us wait longer to get that same amount of water, which means that it needs to rain more before we can get the water. We are happy with that amount of water, that maximum flow, but we want it sooner rather than later. It will still rain the same amount no matter what happens, but we will get our water sooner, which makes our schemes more profitable, which means that more schemes will get built, which is better for the rural economy.

[18] **Vaughan Gething:** Just on the point that you made about schemes that were introduced prior to the current conditions, which have been there for some time—how long have they been in place? That is an important point for us. If they have been there for a number of years, and there is no measurable or definable adverse impact on the environment, that would be quite important for us to know.

[19] **Mr Campbell-Lendrum:** If we are talking about equivalent schemes—because there are schemes in Wales that are 50 years old, but they are of a different design, so we will put those to one side—I can think of our schemes in north Wales, in Ffestiniog and Cwmorthin, which have been there for approximately 15 years. Whether it is one or two years more than that, I could not tell you off the top of my head. However, it is that kind of timescale.

[20] **David Rees:** Thinking of a river in my own constituency, the Afan, which is quite a fast-flowing river, it is now recovering from the industrial age, and fishing-wise it brings about £3 million into the local economy. Have you looked at the environmental impact on fishing?

[21] **Mr Campbell-Lendrum:** Absolutely. I would like to stress that most of the schemes that Richard and I have been talking about over the last 10 minutes are upland streams, above even the spawning areas for salmon and sea trout. There are two schemes that we are looking to develop at the moment—one is in the middle of the Elan Valley, so it has the enormous dams either side, and therefore no salmon migration, and one is immediately below Llyn Brienne, which again is a barrier to salmon. When you are talking about salmon rivers, you

are talking about an entirely different picture, and although we still have some arguments with the Environment Agency, they are not the same as the ones that we have just laid out for you.

1.45 p.m.

[22] **Mr Rees:** The rules for high head and low head are different. For a low-head scheme, you can have what we are asking for now. The rules for a head of 4m are as we have set out just now, that is, what we are wanting is what the agency is saying we can have. We leave a minimum flow that goes through the fish pass and over the weir, and we can take everything up to Q<sub>mean</sub>. Where there are fish in greater numbers, and where there is fish passage, we are already allowed to take more water. Of my 60 sites, four sites are low head. The rest are mainly in the national park and are high-head sites, where there are very few fish. We are mainly talking about protecting bryophytes and lichens, rather than fish. The agency is suggesting that bryophytes and lichens need more water than fish in order to be sustained. Obviously, fish are very important, and there absolutely has to be a balance. However, the agency is already letting more water be abstracted where there are more fish.

[23] **Lord Elis-Thomas:** You are aware, of course, that we are involved in a parallel inquiry into the environment body that will manage the Welsh environment in the future. The potential for combining the Environment Agency Wales, the Countryside Council for Wales and Forestry Commission Wales is something that we are looking at separately. Therefore, in future, there will have to be clear and similar guidance available, I would have thought, as well as regimes of management, control and consent, which would provide a level playing field—if that is possible in a river—for all of you. Do you have any views on that?

[24] **Mr Campbell-Lendrum:** A co-ordinated view would certainly help. To be fair to the officers at the Environment Agency and CCW, they are getting better. Both parties have turned up to a number of meetings that we have held on the riverbank, for example, and we have had a three-way discussion. I would always stress the importance and value of having the developer and the licensing authority standing there, speaking to each other, looking at the same site, understanding what is going on, avoiding confusion and understanding the concerns of the environmental body so that schemes can be modified to take them on board. That is fantastic. Anything that can be done to move those two organisations together would most certainly be supported. I would add, however, that issues remain while they continue to stress the negatives of a scheme, rather than looking at the positives in terms of renewable energy, investment in communities or connecting communities up to the grid, which is what happens on the back of these schemes. While the positives are divorced from their thinking, we are going to have a focus only on potential negatives—and I stress that they are potential negatives, as opposed to real negatives, in many cases.

[25] **Lord Elis-Thomas:** Dr McNabola, before I bring Llyr in, would you like to give us the Irish academic perspective on how we should carry on in Wales, in terms of the collaboration between Trinity and Bangor universities?

[26] **Dr McNabola:** Certainly. The reason why I was invited here today was because I am working on a joint project with Bangor University on energy recovery in the water industry, using hydropower as a means of recovery. There are certain places in the water industry where it is possible to recover energy from pipe flow without interfering with the service to customers. That is important because the water industry is a very energy-intensive industry. It takes quite a lot of energy to supply water, treat it, collect it again and return it to the water cycle. This project started in May. We are examining the feasibility of this in Wales and the east of Ireland, how much energy could be recovered in existing water supply networks and how we might change them in the future to be more energy efficient. There is quite a bit of energy to be saved. It is not quite renewable energy, because it requires energy in the first place. However, there is quite a bit to be saved. The project will take three years to run, so we

cannot give a definitive answer as to how it will go. However, it is a newish avenue for hydropower—a way of increasing the energy efficiency of a country, given that water services have a huge impact on emissions and so on.

[27] **Lord Elis-Thomas:** What we are talking about is existing water supply schemes that can then be turned into hydro projects, are we not? As at Llyn Celyn.

[28] **Dr McNabola:** Yes. In many ways, this is much simpler than what Ewan and Richard have been talking about, because we do not have the problem of worrying about how much water we can use: we can use all of it, as long as we do not interfere with the service to the customer. Essentially, we try to supply water within an upper and lower band of pressure. We do not want it to be too low, or it will be a dribble when it comes out of the tap. Alternatively, if it is too high, it might burst the pipe or cause leakage, which is a big problem. There are ways to try to control that by using various tanks and reducing valves. That works well, but the energy is wasted, and so we could try to recover that. It depends on the flow and pressure. We found a typical range of 300 kW to 5 kW. Whether it is viable depends on where it is and whether there is a use for the energy in that location. Sometimes, the location is quite isolated, so there is not.

[29] **Lord Elis-Thomas:** You are all involved in maximising the combination of activity between water supply and hydro-powered generation. Is there even more potential that has not been tapped into, given the number of reservoirs in Wales?

[30] **Mr Campbell-Lendrum:** With regard to reservoir-scale schemes, the answer is 'yes'. Most of the easy, bigger ones have been done. We operate at Llyn Celyn, Elan Valley and Llyn Brianne and for each of those you are talking about schemes of the order of 3 MW or 4 MW. They are obvious examples of how you can take energy from the water supply in a way that is a win-win for everyone. As a result of the feed-in tariff, smaller-scale schemes are now becoming economic, which they would not have been previously. As I see it, there is nothing but gain in that: for the companies making the investments, the environment, and the local communities. Therefore, those should most certainly be taken up.

[31] **Dr McNabola:** There is also an increasing awareness among water authorities that they can save on their energy bill, which takes up quite a large part of their budget, by investing in this.

[32] **Llyr Huws Gruffydd:** Rwyf am ddod yn ôl at rôl y cyngor cefn gwlad ac Asiantaeth yr Amgylchedd yng Nghymru. Yn y dystiolaeth rydym wedi ei derbyn ganddynt, yn enwedig gan y cyngor cefn gwlad, rydym wedi clywed eu bod yn poeni am eu capasiti i ddelio â nifer y ceisiadau sy'n ymwneud ag ynni adnewyddol. A oes gennyh sylwadau ar hynny? A ydych yn teimlo bod broblemau o ran diffyg adnoddau, ac, efallai, arbenigedd, o fewn y cyrff hyn wrth ddelio â cheisiadau?

**Llyr Huws Gruffydd:** I want to come back to the role of the countryside council and Environment Agency in Wales. In the evidence that we have received from them, particularly from the countryside council, we have heard that they are concerned about their capacity to deal with the number of applications relating to renewable energy. Do you have any comments on that? Do you feel that there are issues with a lack of resource, and, perhaps, expertise, in these bodies in dealing with applications?

[33] **Mr Rees:** There is a lack of resource. Personally, I have found a greater lack of resources in the national park authorities than in the CCW. That manifests itself in the fact that the national park authority will not register a planning application until you have the abstraction licence in place for a hydro scheme. If the planning application then takes two months to determine, that adds two months to the lead-in time, and you have to wait two months longer for the turbine. If there were more resources, that issue could be resolved and it

would be like it is in Conwy County Borough Council, which makes the determination at the same time. I imagine that the CCW would also benefit from more resources. However, with the merger with the Environment Agency, you may find that there is less duplication and that there will be one decision maker, rather than our having to satisfy two bodies on the same topic.

[34] **Mr Campbell-Lendrum:** I think that the Environment Agency and the CCW both suffered as a result of the peak in hydropower applications about a year ago, following the introduction of the feed-in tariff. The Environment Agency, in particular, keeps very good statistics, and the number of applications it had, particularly in north Wales, was enormous. They really struggled with regard to resources. However, the big push has largely gone through now, and they seem to be turning applications around much quicker. If that is a sign of how they are coping within their resources, I would say that the situation is much better now than it has been. Certainly, they were stretched. I would echo Richard's point about the approach taken by certain planning authorities, particularly by the national park authorities, in insisting that Environment Agency consent is gained before planning consent. My personal reading of that is that it is so the Environment Agency can filter out applications before they go for planning consent. That is a dangerous approach for us as developers in terms of timescales and risks, as well as in terms of a democratic overview of projects. In a scenario where the Environment Agency goes first and then the planners go through the application, the indication given to us, although I am sure that this is not strictly the position, is that if the Environment Agency is happy then the planners will be happy. If that is true, surely the people who are feeding in the planning applications are not getting heard properly. If that is not true and if we are doing it sequentially, what happens if the demands of the Environment Agency and the demands of the planners are slightly different?

[35] Imagine a situation where we apply for an intake for an extraction, we want to put it in a certain location, we agree with the Environment Agency that that is a good location, and we get consent for it. Then we go to the planners and they say, 'There is a tree there that has bats in it; you have to move the intake'. We then have to go back to the Environment Agency. If we had done the processes in parallel, we could have had that discussion at that time. We could have moved it a few metres, avoided the bats—or the visual impact or whatever the concern was—and ended up with something that met everyone's needs. I just do not see how that is a winner for anyone, apart from the individual moving that bit of paper around in the planning team.

[36] **Mr Rees:** There is no justification for a person in the Environment Agency and a person in the national park not being able to speak to each other over a two-month period to agree on a scheme, without having to add another two months at the end.

[37] **Lord Elis-Thomas:** We are talking about Snowdonia, are we not? Let us name spaces and places. I can speak like this, because you know where I come from.

[38] **Julie James:** I think that the other national parks are much better.

[39] **Lord Elis-Thomas:** Yes, but let me just finish this discussion. I am a resident of Conwy county borough. I am not the riparian owner of the stretch of river near which I live, but if I were, and if I wanted to apply for a hydro scheme there, and it was not in the national park, would I get a more rapid response if I applied through Conwy County Borough Council than I would from Snowdonia National Park Authority?

[40] **Mr Rees:** You would get your formal planning application at least two months sooner. In light of the feed-in tariff review, and the ceilings on capacity, you get a better rate for installing the first 55 MW of hydro capacity. By putting everyone on hold for two months longer, all those people who went into the process wanting the earlier rate will be pushed

back. I do not know how it can be justified.

[41] **Mr Campbell-Lendrum:** You would also get a more holistic view. The irony is that the national park, which we need to treat with more sensitivity than elsewhere, gets the more bitty approach—the approach more likely to go wrong—than outside the national park. The area outside the national park gets the more holistic approach, with all the issues considered at the same time and balanced with each other.

[42] **Lord Elis-Thomas:** I feel the need to call a former member of a national park authority. Are you still on it, William?

[43] **William Powell:** If I was, I would be escorted out by the ushers. [*Laughter.*] First, my apologies for arriving late. Secondly, I think that this is one area where the Brecon Beacons National Park Authority has a particularly good story to tell, because of its work with the Green Valleys and associated projects. I would like to ask whether you have had difficulties at the other end of the process, around section 106, community benefits or anything of that kind, where there is a difference between dealing with the national park authority and mainstream local authorities. Within the overall good news story, I know that there have been some difficulties because of the problems in understanding the concept of community benefit with regard to community-scale hydro schemes. I just wondered whether there was anything that you could add on that.

[44] **Mr Rees:** Personally, I have not had any difficulties in that area. However, in general, we are not looking to provide community benefits for our scale of scheme.

[45] **William Powell:** No. I suppose that that is my experience as a former member of the Brecon Beacons National Park Authority. That was the scale of hydro scheme on which the authority was very active.

[46] **Mr Campbell-Lendrum:** In terms of formal community benefit, as in the community benefit fund, my answer is ‘no’. However, with regard to community benefit in terms of connecting properties and communities up to the grid on the back of our projects, my answer is most certainly ‘yes’. That is something that we are doing quite extensively. We have a number of locations where, quite frankly, it would cost hundreds of thousands of pounds to connect very few properties up to the grid, so, realistically, it is very unlikely to happen. When we build a project now under the modern feed-in tariffs, as opposed to the old non-fossil fuel obligation regime, we can connect those properties up to the grid. That is always our aim where possible, because it is something that seems to fit so obviously with the work that we do.

[47] **William Powell:** That is interesting.

[48] **Mr Rees:** With the Forestry Commission opening up its land for hydro development, which is very much centred on community benefit, it will definitely become more of an issue. It is being pressed upon us that we need to provide community benefit, perhaps over and above a benefit to the landowner. So, it is about getting the balance there. However, I think that that will be driven more by the Forestry Commission and what it expects of us, and we will meet those demands.

2.00 p.m.

[49] **William Powell:** That leads to one question that occurred to me in the earlier round of questions. There have been many references to CCW and the Environment Agency, but up to this point, what experience have you had of the proposed third party to this marriage, or fusion, under the single environment body, and do you have any reflections on the Forestry



Commission coming on board?

[50] **Mr Rees:** Hopefully, it will be of great benefit, with the Forestry Commission opening up its estate for hydro. It should bring everything under one umbrella. Hopefully, it will be a good thing—as long as someone keeps making the decisions and things are not passed on to people who are not willing to make decisions.

[51] **William Powell:** It seems that clarity and efficiency are absolutely crucial.

[52] **Mr Rees:** Yes, and every day that goes by is one more day of risk. Days and weeks go by and our job is to minimise the risk to our clients and to us.

[53] **Julie James:** I expect that you will all have a view on the community benefits that you started to talk about. The committee has heard a lot about community benefits, which is a loosely defined term. In terms of connection to the grid, are you talking about something that is part of the project that you propose in the first place? Is it a section 106 agreement or part of the original planning, or are you talking about something that you do by way of a side effect of your project?

[54] **Mr Campbell-Lendrum:** It is a combination of the two. It is a side effect of the project in that it would never happen if the project did not go ahead, because no-one would take electricity cabling into that particular valley, which quite often covers several miles and would cost hundreds of thousands of pounds. It is normally something that we build in to our costs on the project—we are taking electricity there, and it will be the first time that there has been mains power in the valley, and we know the question that we are going to be asked. If we did not build that in to our costs and assume that we were going to provide connections, or at least the ability to provide connections, we would be naive. So, we work on the assumption that that is something that we will ‘have to do’ or ‘expect to do’ as part of developing the project.

[55] **Julie James:** Does it tend to be contained within the planning consent, as a condition of planning consent?

[56] **Mr Campbell-Lendrum:** Normally, we look at it as a commercial deal. The Elan valley is a very good example; the area is owned by the Elan Valley Trust, or it is under the complicated ownership of Welsh Water, Severn Trent Water and the Elan Valley Trust. The deal that we do for access with the landowners, or the 999-year leaseholders—the Elan Valley Trust—is that we will connect as many properties as we can in the valley up to mains powers.

[57] **Julie James:** That is as a side effect of getting access across their land.

[58] **Mr Campbell-Lendrum:** Yes.

[59] **Julie James:** Are you ever asked to widen that out, to include people whose land you are not crossing but which is adjacent, for example?

[60] **Mr Campbell-Lendrum:** We have not been asked yet under those circumstances; I think that that is just the way it has gone so far. I do not imagine that that would be a problem.

[61] **Mr Rees:** I think that the reason for that is that hydro, unlike wind, is favoured by communities, so the communities do not want anything for a hydro project. What Ewan is doing is a friendly favour to the local farmer, by providing a three-phase connection. As a result of the visual impact of wind generation, communities demand a benefit from it, because they can see it every day. However, hydro schemes are a natural way of generating energy, which is hidden, and no-one wants anything for it. It is more of a local scheme within itself,

which is why community benefit comes up much less with hydro than with wind. Personally, I believe that the real community benefit of hydro is not a payment going to the community—free light bulbs or whatever it is; it is the benefit of having a rural community that is profitable and which works, where everyone gets on with each other and there is money for jobs, say for tractor drivers and lorry drivers, and it all spreads through the economy. All the money in the rural economy comes from the farmer or from tourism; we have to have a booming agricultural sector, and hydro can help that. All we need is more water sooner and we can go and spend all this money.

[62] A report was published in 1980 by the University of Salford, which identified 63 MW of easy hydropower in Wales. That is worth more than £200 million just at the initial building stage, without all of the income coming from those schemes and then being spread throughout the economy afterwards. That is just the initial part. The majority of that money, unlike with wind, is spent in the local economy, with local contractors doing the work—local fitters, brickies, joiners, whoever they are. With wind, most of the money goes on the turbine, which comes from abroad.

[63] **Lord Elis-Thomas:** With the exception of those that come from Chepstow. *[Laughter.]*

[64] **Mr Rees:** Yes, some of them do.

[65] **Julie James:** We are interested in what changes we can recommend to the current planning and permitting regimes. It is interesting to hear what is happening and what is working well at the moment, because we do not want to interfere with something that works—we just want to enhance it. One thing that we have heard in a large number of other sectors is that having guidance on, or possibly compulsion to force, the permitting and planning to run in parallel would be welcome. I think that I am hearing the same thing from you.

[66] **Mr Rees:** Yes, absolutely.

[67] **Julie James:** So, as well as having a culture change around how permitting works, timing is crucial.

[68] **Mr Campbell-Lendrum:** Yes, it is crucial for us as developers to have the timescales running together, and also for democratic scrutiny—the questions that are asked—to be done at the same time. I cannot see the argument for them to be done separately and not all considered in balance, so that one can be weighed off slightly against the other and for the decision to be made in a holistic approach.

[69] **Julie James:** So, when you put in your applications as developers, do you apply for the permitting first, then the planning, because you know that that is what you will be asked to do, or are you putting them in simultaneously and having one put on hold?

[70] **Mr Campbell-Lendrum:** We always start by consulting with the bodies. We are given a strong steer in Snowdonia not to run the two together. In fact, we have been told explicitly that our application would not be validated until the Environment Agency had given its consent.

[71] **Mr Rees:** We have had that as well. We put in for planning and abstraction at the same time, but the planning application will not be validated until we have had the abstraction application validated.

[72] **Lord Elis-Thomas:** Could you provide some written detail about this? Some of it

may need to be anonymised if there is reference to individual applications.

[73] **Julie James:** I was just going to ask, Chair, whether anyone has challenged that as a process.

[74] **Mr Rees:** Yes, we did.

[75] **Julie James:** How did you get on?

[76] **Mr Rees:** It is not all negative; the situation is better and we are progressing faster than before. We were sent a sheet containing steps for working through the planning and licensing issues for hydro schemes. It is a 'just because' rule. It can come down only to resource and nothing else. All they are doing is buying themselves two months more time.

[77] On consenting times, the Environment Agency consent takes four months, and planning should take two months. So, we usually apply for Environment Agency consent first, and then, in a county outside of the national park, we put in for planning consent two months after that. They should then come out at the same time. That gives us more time, because we have to do different work for planning consent and for the Environment Agency consent.

[78] **Julie James:** So that I understand the process, because I must admit that I am not familiar with hydro at all, do you need an abstraction licence and a permit to run the plant?

[79] **Mr Rees:** You need an abstraction licence and an impoundment licence. An impoundment licence is to impound the river—to put in a new weir that acts as a pressure point to abstract the water—and the abstraction licence is to take the water out of the river. So, those are the two licences that we need, and we also need flood defence consent, which is essentially building regulations for working near a river, and planning for the structures that are put in, such as the turbine house. The pipes are usually underground, which is what is good about it all.

[80] **Julie James:** So, you do not need a licence to run the turbine.

[81] **Mr Rees:** That is covered by the abstraction licence, which is valid for a number of years. So, usually up to 2029, you can abstract water and then you reapply.

[82] **Antoinette Sandbach:** Are you able to give us examples of best practice, so that we can identify a good application? What is the best practice that you would like to see in the industry? You described a six-month process for consent—is that the average time that it takes?

[83] **Mr Rees:** It is about 18 months. It is getting faster. I guess that we are getting better at it at the same time as the agency and the parks. We know more about what they want, so we can work towards that. However, that is just the formal consent process. Before that, we have the pre-application stage, so, from the start, we approach the landowner and undertake a feasibility study to see whether it is worthwhile, then the farmer has to give us instructions to proceed, which can take two or three months. Next up is the pre-application stage, and we submit that to the Environment Agency, which will come back to us after two to three months and say, 'Yes, you can have that much water, but you have to do this and this', which essentially is the flow split, which is our main issue. From there, we have to do the initial design of the scheme, which takes another couple of months, and then we can do the formal application submission. If that is on time, it takes four months, but usually it takes longer. In a national park, if we have to do planning separately, that will require another two to three months after that. We then do detailed design, and then we can put orders in for our bits and

bobs. A turbine can take up to six months, so that is another six months. On a scheme that I am working on now, we are looking at building at the end of 2013, and that is why we need to eliminate as much uncertainty as we can, because we have to convince someone today to take on the risk that someone may not say 'yes' and to spend £10,000 today although they will not see anything from it until 2013.

[84] **Lord Elis-Thomas:** It is an individual landowner who is spending that money.

[85] **Mr Rees:** Yes.

[86] **Mr Campbell-Lendrum:** On top of that, everyone will be familiar with the uncertainty over the feed-in tariff for solar. That threw uncertainty onto hydro, incorrectly, as it turned out, but we know that we have the drop in the feed-in tariff for hydro coming, as set out in the consultation, and there will be another review in two years' time. If we start the process that has just been described by Richard now, we have not only the current review, but the next review that is coming, and that throws a considerable amount of uncertainty into a developer's mind.

[87] **Lord Elis-Thomas:** Part of that belongs to the UK Government, for which we are not yet responsible.

[88] **Mr Campbell-Lendrum:** Part of that is the UK Government, that is absolutely right, but we do not need to add additional uncertainty in the planning process.

[89] **Mr Rees:** If we could go into this process knowing that we would get more water—they are making a fuss about it in England and Scotland, and they are well off compared to us, because they get more water, whereas we get less water, and we have to deal with the uncertainty of the feed-in tariff. They think that they cannot cope with more water and a reduced tariff, when their schemes are so much more profitable than ours before the change in feed-in tariff. If the feed-in tariff change comes in, and we have not built our schemes, we will be in a really bad position.

[90] **Antoinette Sandbach:** Are you able to provide us as a committee with a short paper about best practice in Scotland and England so that we will know what best practice for you looks like, and we can look at that as part of our recommendations?

[91] **Mr Rees:** Yes, certainly.

[92] **Mr Campbell-Lendrum:** Certainly.

[93] **Vaughan Gething:** This is a brief point. I want to return to one of the points that came up in the evidence that the Environment Agency gave us. It acknowledges that there has been criticism of the way that it has dealt with hydropower applications. It told us:

[94] 'we went through a rigorous process of looking very hard at our processes, paring them down so that they were streamlined back, providing much better guidance to the developer and to the communities...so that they knew exactly what criteria we would be assessing the application against.'

[95] That is what it told us. Is it your experience that there is now greater clarity, and if there is, is the issue that we have now not so much clarity, but the decision itself by the Environment Agency so that you know what it is going to ask for and, when you go into this permitting process, you will not be surprised at that stage?

[96] If I may ask at the same time, on this point about flow splitting, which I had not heard

of at all, it appears to be a significant problem on your side of the table. You have told us that it is novel in terms of the map of the UK. I was most concerned, however, when you said that it is not just the amount of water, which is a technical point, but that it reduces the level of return, which might affect the level of investment in hydropower. Are you seeing investors being turned away because of that and does that mean that we will not reach the targets that we have set ourselves?

2.15 p.m.

[97] **Mr Rees:** That is the crux of it. The flow split is not the difference between the scheme going ahead on a bigger or smaller level, or a profitable or less-profitable level; it is the difference between the scheme happening or not happening. That is why it is so important to get it right. There is a lack of investment. People are not investing. Ewan is a prime example of that.

[98] **Mr Campbell-Lendrum:** Yes. The picture is quite clear. Due to the flow splits, the return for a scheme in Wales will be half that of an identical scheme in Scotland. Therefore, it is quite simple: as much as we want to develop in Wales, how can we persuade people to invest in Wales when their return would be twice as great in Scotland?

[99] **Vaughan Gething:** So, on this point about the Environment Agency, when it tells us that it has pared its stuff back and it is more streamlined, is that true?

[100] **Mr Campbell-Lendrum:** It is more streamlined, yes.

[101] **Mr Rees:** It is much better now than it was 13 months ago—absolutely. The process is much faster and more transparent. It is certainly better. However, before, the lack of cohesion in the system was just a time delay. A time delay is not ideal, but it is a time delay. However, the flow split is a financial issue. It is a policy issue rather than a system issue. It could be as efficient as you could want it to be—it could be superefficient, so that you put it in and get it back exactly on time—however, if you are not getting what you want, it does not matter how efficient it is, your schemes would still not be as profitable. I tried to set out in that table the loss on a scheme in Wales compared to a scheme in Scotland or England. It is thousands of pounds of profit, and profit is spent in the local community by the farmers. We are losing money to England and Scotland from the feed-in tariff.

[102] **Mr Campbell-Lendrum:** The Environment Agency is entirely correct in saying that its system is now quicker than it was and more certain in terms of its outcome than it was, from our perspective. It would also be able to tell you that vast majority of pre-applications it receives have a recommendation to proceed. That would be a correct statement. However, the recommendations come with such conditions that very few will actually be built because, as I keep stressing, the return is half what it would be elsewhere. Therefore, the return as originally set by DECC, as applies elsewhere in the UK, is just not met. It is not the case that the schemes just get built a bit smaller—although a few will; the vast majority of schemes will not be built under those conditions.

[103] **Vaughan Gething:** So, this relates to Environment Agency Wales, and it is a subject that we may want to return to in our recommendations.

[104] **Mr Rees:** At the moment, the Environment Agency rules are under review. It is therefore very important that this information is included in the review and that we do not have the system reviewed with the same rules, so that we go forward for another couple of years with the same flow-split rule. That needs to be sorted out now while it is under review.

[105] **Julie James:** I am fascinated, because, presumably, at the moment it is an England

and Wales agency, but it is operating different rules in Wales and in England.

[106] **Mr Rees:** The two parts of the agency interpret the guidance differently.

[107] **Mr Campbell-Lendrum:** It is even worse than that. There are different rules in north Wales and the rest of Wales.

[108] **Lord Elis-Thomas:** Oh, do not tell me that. [*Laughter.*]

[109] **Mr Campbell-Lendrum:** To be fair to the agency, it is now moving towards a common standard. The downside of that is that it is moving to what we would call the lower common denominator, bringing in tighter rules across all of Wales—

[110] **Julie James:** But not in England?

[111] **Mr Campbell-Lendrum:** It is looking at rolling it out across England as well. For the sake of the hydro industry in general across the whole of the UK, I hope that that does not go ahead—

[112] **Julie James:** But it is going that way rather than the other way, is it?

[113] **Mr Campbell-Lendrum:** It is pushing to go that way rather than the other way, but there are debates in the Environment Agency head office and across England and Wales. However, the real contrast is with Scotland. I have had discussions with the Environment Agency. I have shown it examples of the sort of consents that we are being granted in Scotland. They are dramatically different. I am more than happy to share that with you so that you can see the contrast between very similar situations. We can talk about England and Wales being geographically different and England and parts of Scotland being geographically different, but, quite frankly, in biological terms, upland streams in Snowdonia, the Lake district and the Highlands are very similar. There are very similar issues.

[114] **Mr Rees:** We are on the same island. The whole west coast of the UK has exactly the same weather. It is colder in Scotland, but they still have as much rain as we do. We have the same bryophytes, the same mosses, the same bats, the same lichens and so on and I just cannot see the justification for our having less water in Wales than in Scotland.

[115] **Lord Elis-Thomas:** There is a different bureaucratic culture, imbued by a great non-conformist tradition. I am sorry. [*Laughter.*]

[116] **Julie James:** So, it is your fault again. [*Laughter.*]

[117] **Lord Elis-Thomas:** No, it is not my fault, no. I left it 25 years ago. [*Laughter.*]

[118] **Mick Antoniw:** On the policy side, I am still a bit unclear about the status of this flow-splitting policy. Do we need to write to the Environment Agency to seek whatever explanation or policy there is? Do we need to have a look at it?

[119] **Lord Elis-Thomas:** In view of this very strong evidence, we can at least ask for a written statement from it. If we are not satisfied, we can bring the Environment Agency back.

[120] **Vaughan Gething:** Yes, particularly in light of the evidence we heard earlier about a decade and a half of streams with different flows and different extractions where there does not appear to be any evidence of environmental degradation.

[121] **Lord Elis-Thomas:** Yes, and there are people who have lost the potential of

investment.

[122] **Mr Campbell-Lendrum:** That is the key. It is relatively easy to see the potential negative impact on a stream. We would argue that the negative is not there, but it is easy to see the potential negative. However, it is not so easy to see the lost opportunity, the lost income and the lost jobs. Hydro is unique among all the renewables. The vast majority of investment happens there on the ground—it is the guy driving the digger, the brickie, and the electrician who is connecting it up. It is the turbine that comes from elsewhere in the UK, but that makes up only 20% or 30% of the investment. It is the other way around with a windfarm, with the majority of investment being in the turbine and relatively little in the balance of the plant on the ground. If you look at the map of hydro opportunities in Wales produced by the Environment Agency, you will see that it looks as though Wales has measles. There are spots all over the place. That means that these investments would often happen in rural communities and isolated areas.

[123] **William Powell:** Going back to your experience of the planning process, I have a couple of questions. I am really quite puzzled by your different experiences of two adjacent planning authorities. I want to clarify this. Is it Conwy county borough or Gwynedd outside the national park—

[124] **Mr Rees:** It is Conwy and Denbighshire—

[125] **William Powell:** Oh, it is Denbighshire.

[126] **Mr Rees:** I have dealt with both councils and they are both happy to take them separately. Actually, from experience of working on a job in Lancashire, they have put the planning application in before even going for consent for abstraction. So, it can be played any way.

[127] **William Powell:** I was particularly puzzled by the fact that it was adjacent authorities because I would have thought that they would both be subject to the same guidance on validation and best practice under the Welsh planning guidance. However, that is something that we can explore.

[128] **Mr Rees:** I think it is a resource issue.

[129] **William Powell:** The other issue is that the targets for turning around planning applications do not kick in until you have a validated application, as I understand it. Therefore, if you have potentially difficult issues, the clock has not started ticking. That is a factor.

[130] Finally, have you been drawn in at the LDP planning stage by any of the Welsh local authorities to help spot the potential and to feed in as experts in this field to identify areas appropriate for hydro developments? It would seem to be a no-brainer to draw on the expertise you guys have.

[131] **Mr Rees:** I have done work for Conwy council. It has a grant system, so the council pays me to help its farmers with schemes—

[132] **William Powell:** As a consultant.

[133] **Mr Rees:** Yes. However, the change in rainfall from Snowdonia in the core of the national park just to Conwy is absolutely phenomenal. That difference alone makes schemes in Conwy much less profitable than schemes in the national park. The difference over just a couple of miles is huge. That means that the schemes I am generally looking at for the council

are borderline profitable. That is mainly because of the flow split. There was one scheme that I did that, if the flow split was not in place, would earn double what it would with that in place. The scheme will generate only £6,000 a year, so the difference at that level is enormous.

[134] **William Powell:** It is critical.

[135] **Mr Rees:** We are fighting that one. You cannot do it at £6,000 a year—it is not viable.

[136] **William Powell:** Of course not.

[137] **Mr Rees:** The benefit of a scheme like that is £6,000 a year for 20 years, which will go up every year, for a local farmer who employs a lorry driver. If it were £12,000, it is money for the boys, is it not?

[138] **William Powell:** I had in mind more the forward planning, with you identifying resources, minerals and all sorts of things for the LDP document going forward for five, 10 or 15 years. Have you not been drawn into that process?

[139] **Mr Rees:** The national park authority did something. There was an event in Maentwrog, which was to say, 'We're open for hydro'. I am not sure whether it identified individual sites, but it said that there are hundreds of potential schemes in the national park. Everyone went to it, and we were told about the all the difficulties of developing hydro, so—. *[Laughter.]*

[140] **Lord Elis-Thomas:** Not for long.

[141] **Mr Rees:** Hopefully not.

[142] **Lord Elis-Thomas:** Thank you very much; this has been a very special and free-flowing session.

[143] **Mr Rees:** Thank you very much.

[144] **Yr Arglwydd Elis-Thomas:** Dyna **Lord Elis-Thomas:** That brings this meeting ddiwedd cyfarfod y pwyllgor am heddiw. of the committee to a close. Thank you. Diolch.

*Daeth y cyfarfod i ben am 2.26 p.m.*

*The meeting ended at 2.26 p.m.*