

# **ENTERPRISE AND CULTURE COMMITTEE**

Tuesday 20 January 2004  
(*Morning*)

Session 2

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## **ENTERPRISE AND CULTURE COMMITTEE**

### **3<sup>rd</sup> Meeting 2004, Session 2**

#### **CONVENER**

\*Alasdair Morgan (South of Scotland) (SNP)

#### **DEPUTY CONVENER**

Mike Watson (Glasgow Cathcart) (Lab)

#### **COMMITTEE MEMBERS**

Brian Adam (Aberdeen North) (SNP)

\*Mr Richard Baker (North East Scotland) (Lab)

\*Chris Ballance (South of Scotland) (Green)

\*Susan Deacon (Edinburgh East and Musselburgh) (Lab)

\*Murdo Fraser (Mid Scotland and Fife) (Con)

\*Christine May (Central Fife) (Lab)

\*Mr Jamie Stone (Caithness, Sutherland and Easter Ross) (LD)

#### **COMMITTEE SUBSTITUTES**

Mark Ballard (Lothians) (Green)

Rhona Brankin (Midlothian) (Lab)

Mr David Davidson (North East Scotland) (Con)

Fiona Hyslop (Lothians) (SNP)

George Lyon (Argyll and Bute) (LD)

\*attended

#### **THE FOLLOWING GAVE EVIDENCE:**

Robert Forrest (Scottish Renewables Forum)

Angus Gilmour (Argyll and Bute Council)

George Harper (Argyll and Bute Council)

Alan Mortimer (Scottish Power)

Susan Reilly (Scottish Power)

David Sigsworth (Scottish and Southern Energy)

Dr Brian Smith (Scottish and Southern Energy)

Maf Smith (Scottish Renewables Forum)

Steven Watson (Argyll, Lomond and the Islands Energy Agency)

#### **CLERK TO THE COMMITTEE**

Judith Evans

#### **ASSISTANT CLERK**

Seán Wixted

#### **LOCATION**

Victoria Hall, Campbeltown



## Scottish Parliament

### Enterprise and Culture Committee

*Tuesday 20 January 2004*

*(Morning)*

[THE CONVENER *opened the meeting at 10:00*]

### Renewable Energy Inquiry

**The Convener (Alasdair Morgan):** Good morning, ladies and gentlemen, and welcome to the third meeting this year of the Scottish Parliament Enterprise and Culture Committee. We are glad to be having this meeting in Campbeltown. We enjoyed an interesting, informative and informal discussion with members of the public and others last night, and we are looking forward now to a formal evidence session at which we can take forward some of the issues that we discussed last night and other issues.

I ask people to switch off any mobile phones they may have. Even the silent mode is unacceptable, because it interferes with the sound system.

I have received apologies from Mike Watson and Brian Adam.

The only item on the agenda is our renewable energy inquiry. We have three panels of witnesses to give us evidence. On the first panel, we have George Harper, director of development services with Argyll and Bute Council; Angus Gilmour, head of planning services with Argyll and Bute Council; and Steven Watson, manager of Argyll, Lomond and the Islands Energy Agency. Does one of you wish to say a few words by way of introduction to your written evidence?

**George Harper (Argyll and Bute Council):** Thank you for coming to Argyll and Bute. You will have seen over the past 48 hours that we have wave and wind power in abundance.

Thank you for the opportunity to appear as a witness to this inquiry. My colleagues and I are acutely aware of the significant part that Argyll and Bute Council has played and will continue to play in the development of renewable energy in all its forms, and of the downstream effects that the sector can create, particularly in terms of manufacturing and economic opportunity. Sitting here today in Campbeltown, we are particularly well aware of the downstream benefits of renewable energy, in view of the critical role that Vestas-Celtic Wind Technology Ltd plays in

supporting the fragile economy of south Kintyre by providing about 300 jobs. I am sure that you will all agree that that is a significant number of jobs in a rural community.

There is a growing realisation that similar benefits could be gained from emerging renewable technologies in the wave, tidal, solar, hydrogen and biomass sectors. Biomass is potentially our most significant sector. In Argyll and Bute, with 10 per cent of the UK's coniferous plantation and significant pressures on our road system and transport budget from timber transportation, we view the development of biomass, particularly woodchip, as a highly appropriate and beneficial sector. Linked to that, the Argyll and Bute structure plan identifies a major timber-processing inward investment opportunity in the Oban to Dalmally corridor.

Biomass is one source of renewable energy that would benefit significantly from changes to renewables obligation certificates. In our written submission, we have asked the committee to take action on that to enable those certificates to encompass heat generation from renewable sources. The existence of ROCs for heat generation would create opportunities for those using woodchip boilers to benefit from the trading of the ROCs, thereby generating an income. In Argyll and Bute, that would mean that community-run facilities such as the swimming pool in Lochgilphead could generate revenue from the woodchip boiler, which would greatly assist the sustainability of that vital community facility in a remote rural area and set a significant precedent for others, such as the new facility that is soon to be constructed in Campbeltown.

The inquiry is particularly timely given the amount of public and press interest in renewable energy, and the new opportunities that are arising and which must be capitalised on. My council acknowledges the critical importance of harnessing and managing sustainably our untapped renewable resources to offset many of the problems that remote and fragile areas face and thereby create economically and socially sustainable communities. Future investment in the national grid will be imperative to allow Argyll and Bute to realise its full renewable energy-generating potential.

Our energy management agency—Argyll, Lomond and the Islands Energy—is key to promoting the sustainability of our communities through renewable energy and energy efficiency. ALLenergy will have a significant role to play in the strategic partnership that the council is seeking to create with the main renewable energy stakeholders in Argyll and Bute to generate maximum long-term community benefit.

The council endorses what the submission from the Convention of Scottish Local Authorities said

about the impact of local, environmental, social and economic factors on achieving national targets; the need for a national energy strategy; the need to strengthen local authority planning controls; and, most of all, in an era of community planning, the need to ensure that communities derive long-term benefits from renewable energy developments. A national Scottish energy strategy is required to address the question of where and in what form future renewable energy developments—be they wind, wave, tidal, hydro, biomass, hydrogen or solar—should take place in Scotland, based on generating capacity, environmental impact and economic need.

Linked to that is the question of the national planning framework, which should provide local authorities with strategic advice on how the Scottish Executive's renewables targets could be met on a spatial basis, together with a strategic direction for removing infrastructure constraints. Updated Scottish planning policy advice on renewables is also required to reflect changing circumstances and opportunities.

My colleague Angus Gilmour, who is head of planning, and Steven Watson, who is the manager of ALLenergy, are here to answer all questions that the committee might have.

**The Convener:** I start with one of the issues that you mentioned at the end of your remarks. Your submission states that the current planning advice notes should be revised

“to address the issue of cumulative and incremental impact”

of onshore wind farms. That is one of the issues that has been raised frequently with us. We do not need to be rocket scientists to know about the cumulative and incremental impact and to know that although one wind farm may be acceptable, if another one is stuck beside it, the totality becomes less acceptable. What are you expecting Government to tell you that you cannot see with your own eyes or that the local people do not tell you?

**George Harper:** A catalogue of precedents has been set over the past several years for particular types of development. When you heard from COSLA last week, Derek McKim gave the example of the identification of six sites for fabrication yards. From my time in planning, I can remember the creation of enterprise zones when we were moving to structure plans from regional plans. I feel that a national planning framework that identified the strategic opportunities would be more meaningful than what we have at the moment. I would rather that planning was plan-led or framework-led than developer-led. That would be a more robust and cohesive approach to the planning legislation.

Allied to that, the threshold of 50MW does not make sense to me as a professional or to my

members. It takes away the democratic edge and accountability from applications. Part of the inquiry is to understand the need for accountability and to gauge public feeling and response. If democratic accountability is taken away, it will undermine our efforts to ensure public participation.

**The Convener:** What would the strategic framework look like? What would it tell you in Argyll? Do you expect it to tell you that X megawatts of onshore wind energy are required and that certain percentages of it should come from this or that area? Would it be that detailed?

**George Harper:** That would be the thrust of it. The renewables obligation was introduced and we now have ROCs. There has to be a strategic partnership tying in different aspects of legislation so that there is a more cohesive approach and a more structured understanding of what will happen. A criticism here has been that Kintyre is being regarded as the dumping ground for wind farms. A considerable number are here and people ask why they cannot go elsewhere. People say that the landscape is being despoiled and that the very virtues that we extol in terms of tourism are being downgraded. We need to take a more balanced approach. Many other themed planning issues have a strategic framework and that would be a more logical way to make progress with this issue.

**The Convener:** It occurs to me that a strategic framework might not give you balance. In your answer, you seemed to be asking for wind farms to be spread out more evenly across the country. If there were a strategic framework, the planners might sit down and say, “The best places to put the wind farms are there and there, so we will put them all there and there, rather than spreading them out evenly.”

**George Harper:** I do not think that a framework is necessarily a bad thing, because we need some form of rationale. This area relies heavily on tourism, but we want to embrace all forms of renewable energy. There is a critical balance and social and economic factors are writ large in that. After listening to our communities, I feel that we have to get that balance correct. A strategic approach would create a better back-cloth against which to adjudicate on planning applications.

**The Convener:** At the end of the day, if you felt that you had enough wind farms in Kintyre, then, no matter what the strategic approach said, your council would say, “That’s enough.”

**George Harper:** As I am sure you will appreciate, I could not speak for the council. I merely recommend to the elected members what decisions to take. The argument that you make could be put forward, but I would still argue that we should consider having a strategic back-cloth

for the location of wind farming in Scotland. That would be tied into a strategic partnership, as I have outlined in my paper.

**Mr Jamie Stone (Caithness, Sutherland and Easter Ross) (LD):** I want to move on to the subject of the grid, which you mentioned in your introductory remarks. I agree with what the council says in its submission—that the areas with the most potential are also the most fragile, and that the lack of connections could be a problem. At the very end of the submission, you say:

“The potential for a grant system for local grid upgrades should be investigated”.

Could you elaborate on that? Are you talking about money from the Scottish Executive to the council or about a pot of money that could be accessed by Gigha? Do you mean what used to be known as section 94 funding?

10:15

**George Harper:** You mention Gigha, which is an excellent example because of the history of community involvement on the island. Gigha is going ahead with three masts. In Argyll and Bute, with the possible exception of Helensburgh, we are talking about remote and island communities—I do not like to use the word “rural”. We are talking about super-sparsity and peripherality, and it is expensive to provide basic services to our communities. If grant support could be given to small schemes for all forms of renewable energy, that would help to sustain our peripheral, remote and island communities. I put my hands up and say that that is a plea for money from the Executive in the form of grants to subsidise those communities.

**Mr Stone:** Do you not think that there is a danger in taking a bit-by-bit approach, in that it might fly in the face of an overall strategic review of the grid?

**George Harper:** I do not think so. In my experience, the smaller islands and smaller communities would generate power for their particular areas rather than to go into the national grid. I am sure that you are aware, as it was mentioned last week, that significant changes are taking place to the size and capacity of wind turbines—that is another side of the argument. We are looking for ways to assist fragile and remote island communities.

**Christine May (Central Fife) (Lab):** You said in your preamble that the local authority planning controls need to be strengthened, but the submission from Scottish and Southern Energy states that they need to be eased. If the Executive were minded to set up a national strategic framework, how do you think that it would draw that up? Would it use the evidence from this inquiry together with other submissions?

**George Harper:** I will hand that question to my head of planning services, Angus Gilmour. I am sure that he has pretty strong views on the issue.

**Angus Gilmour (Argyll and Bute Council):** We should engage with the development industry to undertake regional resource assessments. They would inform the debate on the targets that should be set for each local authority area. We could then plan with certainty through our local planning system because we would know the targets that we have to deal with, and that would give greater certainty to the process. Developers and planning authorities are crying out for greater certainty because the process is chaotic at the moment. It places big demands on our resources that we find it difficult to cope with. On the national framework, we should go back to basics.

The approach that I have suggested would also remove some of the concerns of local communities about cumulative and incremental impact. If we approve one site, does that set a precedent and where does it end? Will all hillsides be covered with wind turbines? If we set targets through regional resource assessments, that would allay a lot of fears.

**Christine May:** I have some experience of putting through a structure plan, so I know how long it takes. How long would your plan take? Would you call a halt to all development while it goes on?

**Angus Gilmour:** No, because at local planning level we are trying to guide developers into areas where we think that there is capacity for renewable energy. It is a bit of a free-for-all at the moment. Every hillside is open to developers. We need to give more certainty to the process, hopefully with the assistance of a national planning framework.

The other great thing about a national planning framework, aligned to regional resource assessments and local plan frameworks, is that it would inform the debate about investment decisions with regard to the national grid connection. Where do national grid upgrades need to take place? That needs to be aligned to regional targets so that we can plan for the first time at national level to link the resource to the national grid. At the moment, we are going in different directions and those linkages are not being made.

**Christine May:** My second point concerns biomass. Your written evidence states:

“Argyll and Bute has approximately 10% of the total UK coniferous plantation”.

I am not sure what the timescale is for renewing coniferous plantation, but are you confident that, once what you have got there is gone, there will be sufficient replanting and that it will have had time to grow to sustain your needs?

**Angus Gilmour:** The blanket of afforestation in Argyll is well known. You are right to highlight that issue because if we are talking about sustainability, we need the supply. Current information indicates that there will be supply. A side issue that comes up with biomass is the lack of planning controls over areas that have been the subject of deforestation. That is quite an issue, which needs to be addressed in the context of biomass.

**Richard Baker (North East Scotland) (Lab):** I want to clarify what you are saying about a planning framework for locating wind farms. Are you arguing for regional targets? In its evidence, Scottish Power said that there should not be a national plan because it will not have enough information about local issues and decisions; Scottish Power said that there should be regional targets.

**Angus Gilmour:** As I have said continually when engaging with the development industry, when a wind farm is being planned, the devil is in the detail. The plan must be at a very localised level to come out with the best solutions. We are looking for national targets that we can plan for at a local level through our local plan system. We feel that we are best placed to identify where the capacity is for renewable energy within our local communities. At national level, we should get guidance from the Scottish Executive about targets for renewable energy. At the moment, there is a great concentration on onshore wind, and we need to ensure that other forms of renewable energy are given equal attention. We need to be given targets about other areas of renewable energy so that we can plan for that at a local level.

However, there are certain national planning issues that we cannot resolve at a local level. We need guidance from the Scottish Executive on that. For example, the constraints that are associated with the Ministry of Defence technical training areas cannot be resolved locally. There are issues to do with offshore development, on which we do not have technical expertise. There are deficiencies in our information network, which make it difficult for us to plan at a local level. At national level, there are certain areas where the Scottish Executive needs to take the lead and give us guidance, but there are other aspects that are best planned for locally but using national targets.

**Richard Baker:** We would all like to see more investment in marine energy and your submission states that you want more Government incentives for that. Currently, the economically viable way of reaching the targets that you talked about is, obviously, the establishment of wind farms. You are saying that targets for energy production rather than an economic decision should

determine how many more wind farms are in the area. Surely if companies come to you with more proposals for wind farms, it would be very tempting for your members to say on an economic basis that that is an offer that they cannot turn down.

**Angus Gilmour:** The thing about targets is that they will not be set in tablets of stone but will be subject to review and further assessment. You mentioned the cumulative and incremental impact. We can only really decide what that is once wind farms are operational. It is all very well to look at the plans, but once the wind farms are built and the community can judge the impact, that provides better information about the capacity of areas to deal with the cumulative and incremental impact. That will also affect the target-setting issue, because targets can be aspirational to a certain degree—they are not tablets of stone and they can be monitored and reviewed in light of changing circumstances.

**Murdo Fraser (Mid Scotland and Fife) (Con):** I would like to pursue the issue that Richard Baker touched on, which is how we encourage investment in other technologies, such as those relating to wave and tidal power. More or less everybody to whom we have spoken during the inquiry accepts the need for further investment in those new technologies. That would also help to get round some of the problems that we have with people who object to onshore wind farm developments for environmental and visual impact reasons. Could you expand on the comments in your submission about the need for Government to provide “policy support and fiscal incentives” to help with the development of, for example, wave and tidal power?

Renewables obligation certificates currently do not distinguish between different types of renewable energy. Is there a case for having grading of ROCs, and for giving a higher rating to some of the new technologies than to onshore wind, which is currently pretty well developed and widespread? Do you envisage that or do you have other ideas in mind when you mention fiscal incentives in your written submission?

**George Harper:** As you will have seen, I make the point in my submission about ROCs and heat generation. I come back to what is almost a mantra for us, which is that if by fiscal means we can help remote and island communities affected by sparsity and peripherality to develop alternative energy sources, we want to go down that route. Given the physical topography of Argyll and Bute in relation to the prevailing wind and tidal power, we have ample opportunity to pursue that. If we as a council do not capitalise on that opportunity, we are seriously losing out; it is something that we must harness and develop within our communities.



**Murdo Fraser:** I am sorry for pressing you further on the issue, but can you be more specific about what you mean by fiscal incentives? Do you have thoughts as to what specifically you would like Government to do?

**George Harper:** There should be a challenge funding regime, whereby individual communities could develop a small case business plan and get technical support backing to make use of alternative energies within their communities. Communities should be able to apply for challenge funding, which is a tried and tested format used by the Executive. That would be an ideal method, because it would challenge the communities. My experience of working in Argyll and Bute for the past 15 years is that the communities are alive to such a challenge. I listened to the dialogue last night and it was clear that people embrace such opportunities.

**Chris Ballance (South of Scotland) (Green):** I have a couple of questions for Steven Watson of ALLenergy. We have read your leaflet with interest. It mentions your support for the University of Strathclyde Islay hydrogen project. Can you tell us its current position, what its potential is and what timescales are involved?

10:30

**Steven Watson (Argyll, Lomond and the Islands Energy Agency):** One of our directors is Dr Andrew Cruden of the University of Strathclyde. When the agency started up, he was keen to bring together a group of people who would look at fuel cells involving the isolation of hydrogen using electricity and power from such cells in vehicles or static fuel cells. In order to put together a package of credible organisations that would help, Dr Cruden enlisted our support. We held a couple of meetings on Islay, where there has been no lack of community support.

The University of Strathclyde undertook mainly desktop work, which was funded by the Department of Trade and Industry through Future Energy Solutions. Dr Cruden is now seeking assistance from the DTI and other sources, including the enterprise network, to go from a desktop study to a demonstration project that would isolate hydrogen on Islay, store it and use it in mobile or static fuel cells.

The main advantages of isolating hydrogen using renewable energy is that it gives a method of storing hydrogen that removes dependence on the vagaries of the weather—whether it is dead calm or very windy. It also gives us a product with which we can do a variety of things. There is overriding interest in hydrogen fuel cells because isolating hydrogen and oxygen from water and reuniting them causes no harmful emissions.

The University of Strathclyde needs backing for its plan for a demonstration project on Islay. A previous question was about wind and wave power and Islay is a good place for that. It is the only place that has a commercial wave-power shoreline device. That technology is not so close to the market that the ROC situation influences it. The same applies to hydrogen technology, which is in the research and development phase and needs investment. For onshore wind power, the ROC system and power companies' imperatives are sufficient to animate developers and planning applications. However, that is not the case at present for hydrogen technologies and other marine technologies.

**Chris Ballance:** Is hydrogen technology likely to come into play by 2020, or is the timeframe for using the technology as a back-up for renewable energies more long term?

**Steven Watson:** Iceland and Singapore are involved in hydrogen technology. Both focus on it much more than we do because of the lack of availability of other fuels. The rate of development in Islay will depend on incentives and the degree of financial engagement with bodies such as the University of Strathclyde. Its partnership includes a business based in Killearn—Products of Technology Ltd—which produces machines for isolating gases from other gases or liquids, and Air Products Ltd, which deals with industrial gases. All the partnership organisations can work together on hydrogen technology, if the funds are available.

**Chris Ballance:** I want to tie you down as much as possible to timescales because I am not sure whether we are talking about hydrogen technology being 30 or 40 years away from commercial viability, or whether we are 10 years or so from that.

**Steven Watson:** We could have a demonstration project on Islay in two years, from which we could learn a lot. A Canadian company, Ballard Power Systems, is operating hydrogen fuel cells and BMW is running hydrogen-powered vehicles on the continent. There are examples that can quickly be scaled up to make a meaningful contribution towards renewable energy targets, especially in transport, in which our use of oil and the production of CO<sub>2</sub> continue to rise exponentially. If you want to tackle transport, tackle fuel cells.

**Chris Ballance:** My second line of questioning relates to your support for energy conservation. Could or should we be setting targets for energy reduction? Do you do that within Argyll? Is your agency solely about conservation issues in new build, or do you also consider conservation issues across the range of electricity consumption?

**Steven Watson:** New build is important, but given the turnover rate of Argyll houses, many of

us live in houses that are 200 years old; some of them are in the middle of Rothesay or Campbeltown, and we cannot knock them down. The museumification of housing in Easdale and Tiree means that we have to make existing houses more energy efficient. Allenergy works every day with the Scottish Executive's warm deal scheme to encourage insulation measures in homes. We also make full use of the energy efficiency commitments from Scottish Power and Scottish and Southern Energy. In Kintyre especially, Scottish Power's energy efficiency commitment is invaluable to us.

However, we must tackle old houses and find out how we can reduce the energy demand in them. To distribute low-energy light bulbs and jackets for hot-water tanks is an expensive and time-consuming business, but we do it. We must find more generous ways of reducing demand and some mechanism by which we can engage people more on energy efficiency in homes. That does not mean being cold; it means being clever with energy. The Executive's existing schemes, including the central heating programme for the over-60s, are helping, but given the homes that we have, the amount of resources that is being applied does not match our aspirations or, probably, yours.

Every kilowatt hour that we save means 1kWh that does not need to be generated, which means that there will not have to be a planning application for something contentious on the landscape. We can all do something, whether that is only to adjust our tyre pressures so that we burn less fuel in our cars, switch off lights or get automatic sensors. If the local authorities were given funds to implement energy efficiency measures in their own estates, rather than for the limited amount of work that they do at the moment, that would have a big effect on energy use—I had better not get on my hobby-horse.

**Chris Ballance:** It sounds as if we can do something with energy awareness campaigns. What could the committee do to help you? What can we recommend that would help you in your objectives?

**Steven Watson:** Although this does not specifically relate to enterprise, the committee could recommend easing the rules on the warm deal. For example, pensioners who are not in receipt of benefit are currently not eligible for the warm deal. You could examine the Scottish Executive's central heating grant programme and recommend an increase in the measures that are available under that for energy efficiency. You could encourage local authorities and housing associations to improve their existing stock by not making the energy efficiency measures contingent on individual tenants' circumstances and

recommend that they be given blanket funds to upgrade each and every home, not only those that are inhabited by people who happen to be on a certain range of benefits.

**The Convener:** If you went down that road, would there be enough skilled people to carry out the work? One of the problems with the warm deal in my part of the country is that there are simply not enough plumbers around to deal with the existing applications. What is the situation around here?

**Steven Watson:** We are now working with the Eaga Partnership on identifying additional contractors for the central heating programme. The skill levels for insulation installers are not that great, but it has been something of a success story that the warm deal and the new deal have worked together. A number of insulation installers were previously unemployed, but the situation could be improved. If there was a more generous scheme, I think that organisations such as ours or private sector organisations in Argyll would consider getting into insulation installation in a big way.

**Susan Deacon (Edinburgh East and Musselburgh) (Lab):** My first question is also to Steven Watson. From what I have read, seen and heard about Allenergy, I make no apology for saying that I am impressed by the work that it has been doing in energy efficiency, in the development of further expertise and in progressing the debate on the development of renewable energy. I am therefore interested to know a little more about the agency itself. I appreciate that local people will be familiar with this, but committee members might not be. Could you take us through the genesis of the agency? Could you tell us about who brought it together and about the areas where you think its greatest contribution has been? What do you think the potential for the future is?

I am exploring this partly because I wonder about the extent to which you might provide a model for people in other parts of the country that are not as far down the road as far as energy issues are concerned, and where people could learn lessons from your experience of bringing together partnerships and expertise.

**Steven Watson:** The energy agency evolved from an application to the European Union, which came out of a Scotland week visit by elected members and officers of Argyll and Bute Council. Unusually, the EU directorate-general energy and transport contracts with more than 250 small organisations such as ourselves in various member states, under the EU save programme. We are not a blanket organisation.

All energy agencies in Europe have three reasons for being on the go: the rational use of

energy, with all the insulation stuff; the promotion and development of renewable energy; and education, which covers both of those. There is a particularly successful energy agency in South Ayrshire.

Our organisation as it exists today came from a bid that was made by Argyll and Bute Council with partners in the private sector and with the support of the University of Strathclyde, chambers of commerce, Scottish and Southern Energy and people in the community. I now have a board of directors, and the current chairman is an elected member of Argyll and Bute Council. The council provides the banking that is required for any EU-funded programme. The money is usually drawn down after the activity has taken place. We are indebted to the council for providing that service.

Since we started, we have had to identify what we could do with other people's money, and we have been quite successful at that. We need to find schemes that the Scottish Executive is running or trying to run through Eaga and make them work even better in Argyll and Bute through signing up more people to carry out the various measures. We were successful in applying for fresh futures funding through the national lottery, not for ourselves, but for projects on the ground. We use low-energy light bulbs, which we get from Scottish and Southern Energy, and we use our community contacts to get them out and distributed.

The energy agency is very much about finding out what we can obtain from our partners and from various other places and getting it out there for the benefit of people in Argyll, whether they are in business, the voluntary sector, homes or the local authority.

We have also contracted with Highlands and Islands Enterprise for the delivery of the Scottish community and householders renewables initiative in Argyll. That means that we have direct access to the application process for grants, for example to get the biomass energy into the flats here in Shore Street in Campbeltown, which one of my colleagues championed. Our next application from this area will be to get money into the community facility to ensure that there is a local supply chain, that we have the security of energy supply that we need, that we have the local jobs that accrue from that and that we are not just endlessly writing bills to energy companies furth of Argyll and draining the energy pound out of this economy.

10:45

**Susan Deacon:** Thank you for that answer. I will move on to a different area of questioning, which is probably for the council representatives, on the wider impact of the development of renewable energy in this area, particularly on jobs and

tourism. Will you tell us more about your experience to date of the impact on tourism of the developments that have taken place? As we all know, that is an area of concern and there are different views about whether onshore wind farms in particular will encourage or discourage people from coming here. Do you have experience or evidence on that front that you can share with us? Do you have plans for the future for how you will integrate the work that you are doing in this area with your wider work on tourism? I am aware of work in other countries where efforts have been made to make renewable energy a selling point in an area rather than something that might pose problems. I suppose that my question is about the past, the present and the future. Will you comment on that?

**George Harper:** I am happy to do so. On tourism, in the adjudication of planning applications, we have had comments on certain applications—I will not be specific—that they will detract from the tourism economy of Argyll and Bute. In many cases, the same objectors make the same comments.

I regularly attend meetings with the local tourist board, which is Argyll, the Isles, Loch Lomond, Stirling and the Trossachs Tourist Board—I am glad I got that out. Last year it asked me to give a talk on the impact of wind farms on tourism. The response was interesting. I gave the talk in Drumkinnon Tower at the end of Loch Lomond and it was well attended. There seemed to be a perception within the tourist board that people were shying away from coming to certain areas within Argyll and Bute because of the wind farms. When we examined that critically, we found that there was no evidence for it. I gave the tourist board a plan of Argyll and Bute showing the applications that had been approved, those that were operational, those under consideration and those that had been refused. When it saw that a number of applications had been refused, it took a more balanced view. The critical questions that emanated prior to my talk were dissipated to a degree.

The second part of your question was on the present and the future. We are sending out a vast amount of public-consultation documentation relating to our Argyll and Bute local plan, starting at the end of the month. We have dedicated the western seaboard as our economic coast—it is a coast of opportunity for economic growth and prosperity—but we have to balance that with the landscape. We are working with Scottish Natural Heritage on a pilot project to consider the capacity of our landscape to absorb renewable energy developments and other forms of development. That is proving quite an interesting exercise and it is in that context that we shall look at the critical balance.

I have worked in rural authorities other than Argyll and Bute Council, but I would not suggest for a minute that we have an answer to the problem, because we do not. It is all about critical balance and about getting facts correctly presented. There is a lot of anecdotal evidence about tourism and there are a lot of misconceptions. My colleagues and I have no demonstrable evidence to show that tourists are not coming to Argyll and Bute because of wind farms.

**Susan Deacon:** I would like to move on to the question of jobs. We have heard this morning and seen at first hand the impact of Vestas-Celtic. The figure of 300 jobs has been mentioned, and they have obviously had a positive impact on the local economy. Could you elaborate more on the experience to date and on the current situation? You may also want to say a little more about the future and about what further opportunities you envisage for job creation, not just in relation to wind farms but in relation to other forms of renewable energy. What steps do you think the council could take in that regard? Are there any specific measures that Government, at devolved Scottish level or at UK level, might take to maximise the wider employment opportunities that may emerge from the development of renewable energy?

**George Harper:** I shall try to answer those questions in the same sequence in which you asked them. In relation to Argyll, the economy of the Kintyre peninsula and Campbeltown is obviously fragile, and the local enterprise company and the council worked hard to secure the deal with Vestas-Celtic. I regularly meet representatives of the company. When the factory was opened by the First Minister, the company employed 60 people, but now there are nearly 300. In relative terms, that is the equivalent of a massive Hyundai factory in the central belt. I apologise to Christine May; perhaps I should not have mentioned Hyundai. [*Laughter.*]

**Christine May:** I was not responsible for that.

**George Harper:** The factory is extremely important to the local economy here. Although Vestas-Celtic is a large, one-off initiative, we want to project new initiatives further in the context of our local development plan. We want to capitalise on our green island, Islay, where there are various projects that members have heard about. We want to capitalise on woodchip projects, and our development plan has identified two or three sites between Oban and Dalmally where we could achieve added value. If we keep the timber within the confines of Argyll and Bute rather than shipping it out to Corpach or down to Troon, there will be added value and jobs as a result. That is very important.

The council relies on Government support for its active employability unit, which was born out of the new deal. Indeed, we have won national awards for our participation in that scheme. One of the key things that the convener asked about earlier is a critical issue for all of us in Scotland. We really do not have a skills base in terms of plumbers, joiners and electricians. As a local authority, we are addressing that through our new deal programme. We are about to undertake two major projects—a housing stock transfer and a private finance initiative in education, both of which will demand those skills. The council recognises the issue in the work of its ever-expanding employability unit and, if there was more money available for that, we would certainly use it.

We hear about technology periodically. In the way in which Argyll and Bute Council operates, we try to capitalise on information communication technology through our digital communities project and three islands partnership. That said, we decentralise pockets of employment. The employability unit is based here in Campbeltown, but our European office is based on the island of Bute. Through all those measures and through continued support for our employability unit, we need to address the skills shortages and to harness the skills that relate to our natural resources—the wind, the air, the tides and the biomass. If we can capitalise on that, there is a future there for us. I hope that that answers your comprehensive question.

**The Convener:** Does Jamie Stone have a question?

**Mr Stone:** Susan Deacon picked up what I wanted to ask about.

**The Convener:** I want to clear up a couple of points. What is the legal status of ALLenergy? Are you a company limited by guarantee?

**Steven Watson:** Yes, we are a company limited by guarantee and we have charitable status, as a result of the social side of our activities—the warm, dry homes work.

**The Convener:** I want to ask about biomass and the potential use of ROCs in relation to that. That could be considered only if the tree felling and planting were done on a like-for-like basis, because otherwise the process would not be carbon neutral. Do you agree?

**George Harper:** I would go along with that. Obviously, one would get to the point of diminishing economic returns, because the process is not sustainable. That issue must be examined in the round. We would concur with your view.

**Steven Watson:** There is a good deal of under-managed forest resource here in Argyll—a lot of

material is being cut to waste and left to lie and rot. The carbon in those trees just rots away and remains in the biosphere. There is impressive scope for additional employment through better management of the forest resource, if there is a market for the product that comes from that resource. Management and replanting follow on from the existence of such a market.

**The Convener:** I thank members of the panel for their evidence, which has been very helpful.

Our second panel comprises representatives from some of the power companies. Susan Reilly is the managing director of Scottish Power's strategic transactions UK, Alan Mortimer is head of wind development at Scottish Power, David Sigsworth is generation director of Scottish and Southern Energy, and Dr Brian Smith is head of projects with that company. Do you each have a brief word to say before we ask questions?

**Susan Reilly (Scottish Power):** Yes, we do.

**The Convener:** Okay, Susan can go first.

**Susan Reilly:** As I think most people know, Scottish Power is a leading developer of wind energy in the United Kingdom and we support the ambitious targets that have been set for renewable energy by the Scottish Executive and the UK Government. Wind farm investment is a key element of Scottish Power's strategy in the UK and we aim to build around 1,000MW of new renewable energy capacity by 2010. To do that, we will spend in the region of £800 million, so renewable energy represents a substantial part of our on-going strategy.

In our written submission, we have highlighted four key areas that will need to be addressed in order to meet the Executive's targets and our strategy objectives. The first area concerns the planning process, about which much has already been said. We must reduce delays and increase the number of positive decisions. That issue is more critical in Scotland than it is in England, because the power companies in England can rely on a substantial contribution from offshore wind sources. As that opportunity is just not available in Scotland, we must sort out the situation with delays and the success rate of applications for onshore wind sources. Our submission indicates that an increase in planning application fees might well help the local authorities to deal with resource requirements and thereby reduce the length of delays that we experience at the moment.

Secondly, we must resolve certain aviation issues with the Ministry of Defence and the airport operators. Thirdly, electricity networks must be expanded and we must ensure that wind farms in Scotland are not charged more than generators elsewhere in the country are for access to those networks. Finally, we believe that changes to the

Scottish renewables obligation should be undertaken with extreme caution. Most investors see political risk as a key concern; anything that undermines the basis on which investors invest will weaken confidence and could constrain the industry's expansion.

We thank the committee for initiating this important inquiry and hope that people from different sectors and with different views will engage with the process so that we can all determine how Scotland can play its part in combating global climate change.

11:00

**David Sigsworth (Scottish and Southern Energy):** Scottish and Southern Energy welcomes the committee's inquiry into renewables in Scotland for three simple reasons. First, we need to do everything that we can to cut the emissions of greenhouse gases; renewable energy helps us to do just that. Secondly, renewables provide us with an extra source of indigenous energy at a time when other sources of power, such as oil, gas, nuclear energy and coal, are in decline. Thirdly, we believe that renewables represent an excellent economic development opportunity for Scotland. For all those reasons, we hope that the committee will urge the Executive and the UK Government to remain committed to stretching targets for renewable energy generation and to the Scottish renewables obligation, which is the key policy instrument that stands behind the growth of renewable energy.

In our written submission, we have set out seven vital issues that must be tackled if Scotland's renewable energy potential is to be realised. I will briefly summarise those issues, the first of which is planning. We see the planning process as a big obstacle in taking renewable energy projects from the proposal to the construction stage.

The second issue is defence. Although there have been good examples of the MOD's willingness to work with developers and planning authorities to ensure that good wind farm developments can take place, it is important to remain vigilant in order to avoid creating no-go areas for such developments.

The third issue is infrastructure. More renewable energy developments will have major implications for the electricity transmission and distribution network. SSE feels that the most urgent need is to upgrade the 140 miles of electricity transmission between Beaulay, west of Inverness, and Denny near Falkirk. That infrastructure is of national importance if Scotland's renewable energy ambitions are to be fulfilled—those ambitions hinge on that development. It is vital that the upgrade goes ahead as soon as possible. My

company issued a press statement earlier today on the progress of the project. We will write to the clerk of the committee later today to provide full details.

The fourth issue is charging. I will reinforce what has already been said. It is important that the arrangements for charging generators for the use of electricity networks—changes to those regimes are being consulted on, in advance of BETTA, the British electricity transmission and trading arrangements—should not discriminate against generation in Scotland. Both SSE and Scottish Power have, in our written submissions, outlined how Scotland will be greatly disadvantaged in the current consultations.

The fifth issue is emissions trading. The European Union emissions trading scheme, which is due for implementation next year, is intended to be a “further incentive” for renewables. However, it is vital that that scheme is introduced sensibly and sustainably. It must genuinely drive Scotland and the UK towards a low-carbon economy.

The sixth issue is partnership. In the future development of the renewables industry, on-going needs require the Executive and, at United Kingdom level, the Department of Trade and Industry to help to fulfil the potential. We believe that the new renewables technologies will need sustained partnerships. That will include joint funding between public and private sectors, which will be very important.

The seventh and final issue is confidence. The Executive and the UK Government need to maintain and encourage the right climate for investments. They must ensure that all policy developments are compatible with maintaining the climate for investment in renewables that they are trying to achieve.

Investor confidence exists—certainly around this area—but it is fragile. If those seven issues are addressed, the potential of renewables can be realised. However, as the proportion of intermittent renewables technologies grows, there will be a clear implication for the management of the electricity system. In particular, there will be implications for the cost of maintaining stable supplies of electricity. For that reason, it is vital to recognise that we have to retain sufficient thermal plant to be able to manage the system in periods of intermittency.

In summary, we agree with the committee’s observation that there has been widespread support for the developing sources of renewable energy in Scotland. That level of support is not surprising, given the breadth of the benefits that renewable energy can bring to Scotland now and in the next 15 years. Clearly, Scotland’s ability to realise its renewable energy potential is

dependent on the series of issues that I have just set out. SSE is committed to working with the legislators and the officials on all those issues.

**The Convener:** I will start by picking up on a phrase that occurs in Scottish Power’s submission:

“Government can help by providing a stable political climate”.

What exactly does that mean? I presume that it does not mean that we all just retain our seats at the next election. [*Laughter.*] If it did, we would all vote for it.

**Alan Mortimer (Scottish Power):** It means stability of the targets, because the targets are the commercial drivers. By targets, I mean the targets that are binding through the renewables obligation and set at the UK level. Long-term certainty in the targets is necessary for investors to be confident enough to continue investing in the long term.

**The Convener:** In your submission, you are clearly looking for Government policy to stay the same not in all areas, but only in certain areas that would suit your commercial advantage.

**Alan Mortimer:** Recent changes were made allowing more biomass, which we welcome. However, the amount was limited deliberately, to avoid undermining investor confidence in the ROC market as a whole. It is important that a free-flowing ROC market is allowed to continue.

**The Convener:** Some people are suggesting to us that ROCs should be issued for biomass. Others have suggested that extra ROCs should be issued for producing electricity from wave or wind energy. How does that undermine the market?

**Alan Mortimer:** It could stratify the market. Anything that breaks up the market and the obligation into segments could limit the free flow of ROCs and affect the market’s viability. The free functioning of the market is important to ensure that the full value feeds through to renewables generators.

**The Convener:** Are you suggesting that, if there were more ROCs in the market, there would not be enough other suppliers needing to buy them?

**Alan Mortimer:** Not at all. However, a fundamental component of the set-up of the operation at present is full tradeability of certificates. That needs to be maintained.

**The Convener:** In that case, do you not accept that there is a need to encourage other forms of renewable energy? Clearly, we will run up against the buffers with onshore wind—in public acceptability, grid intermittency and so on. If we are to keep raising targets for renewables, we must encourage the other technologies to develop. If there are no commercial incentives to develop, how do we encourage investors to take that line?

**Alan Mortimer:** We have suggested that the best way of doing that is through capital grants, which appear to be working fairly effectively with offshore wind down south. Extension of those to some of the new technologies up here in Scotland could be similarly successful, without interfering in the ROC market per se. Capital grants could deliver what is required by way of incentives.

**The Convener:** I am sure that we will return to that issue.

**Mr Stone:** My question relates to what you have just said. Given intermittency, the alternative source of energy is tricky and may be some way down the road. You said that the maintenance of thermal power will be crucial as the amount of renewable energy increases. That argument is frequently made by the nuclear industry—we hear it time and again.

My question is for Alan Mortimer. What consideration has been given to coping with the day when the wind does not blow? We have talked informally about pumping up water when there is extra wind energy, so that hydro schemes can be linked to wind power. In earlier evidence, we heard about hydrogen cells. I do not know the scale of the projects that we are discussing—I assume that they are wee things—but why can we not fill a big gas machine with hydrogen, in the old Oor Wullie fashion, and have the ability to put that on tap on bad days? What are your thoughts on that suggestion?

Would such work be done by companies such as Scottish Power, or would you say that it is up to the Government to think about that, because you are getting on with developing renewables? Where do the responsibilities lie? If we examine the issue dispassionately and scientifically, we will see that there are opportunities.

**Alan Mortimer:** It is for the industry to ensure the continued flexible operation of the market. Options for flexible plant are restricted. There is pumped-storage hydro power, which we have at Cruachan and which Scottish and Southern Energy has at its plant. However, there is not much potential for increasing that. There is also coal-fired generation, which is flexible. The argument can be overplayed, as fluctuations in the output of an individual wind farm are not representative of a batch of wind farms across the country—at any point in time, wind speeds across the country will be diverse, so to some extent fluctuations will be smoothed. However, as more intermittent renewables come on stream, variability of generation input to the system will increase, which will increase the need for flexible plant. The most flexible plant, with the most capacity at present, is coal-fired plant, but there is no incentive to maintain the availability of that capacity in the long term. That is a key issue.

**Mr Stone:** Coal will not be there for ever.

**Alan Mortimer:** No, it may not. However, at the moment there is a dichotomy. Coal-fired generation is being discouraged to reduce its output, which is fine as more renewables come on line. However, at the same time we need to maintain stable supplies, which will require flexibility to come from somewhere. At the moment, the only fuel that can provide that cost-effectively is coal. However, some incentive will be needed to ensure that capacity is retained.

**The Convener:** Does Scottish and Southern Energy wish to add anything?

11:15

**David Sigsworth:** There are two issues. I agree entirely with what has been said so far. The emissions trading scheme is an important arbiter of how quickly coal-fired generation and other thermal generation will be retired. I said in my opening remarks that the scheme for the national location plan that was revealed yesterday needs to be studied closely to satisfy everybody that that transition can take place. People need to be assured that, instead of being a backward-looking arrangement that keeps the old world in place, the scheme looks forward to a world where we have lower carbon emissions. We have to satisfy ourselves that that transition can be made, so that renewables play their maximum role and are allowed to develop. In particular, the technologies that we have said still require some years to mature have to be able to do so to ensure a smooth transition. If the committee would like my company's views on the emissions trading proposals, we could write to you on that.

**Mr Stone:** Finally, do I gather from what you are all saying that the management of the blip day is the responsibility of the energy-producing companies? I accept that we are in a transitional phase.

**David Sigsworth:** At the moment, the gas and electricity network operators are encouraged to operate their systems with gas storage and pump storage, as well as with other ancillary service contracts, to be able to cover those peaks.

I mentioned transmission charges for generators in Scotland. If they are allowed to crystallise into the sort of figures that are being put forward by the grid company in England and by the Office of Gas and Electricity Markets for the embedded generators, that will discourage those systems in Scotland and put them at a substantial disadvantage in relation to English plants.

**Murdo Fraser:** I have a couple of questions on the planning aspects for onshore wind generation. Both companies refer in their submissions to

difficulties with the current planning system. I recall that, at a useful seminar that I and a number of other members attended at Scottish and Southern Energy's headquarters in Perth last summer, it was mentioned that developers expect one in eight applications to be successful. Can you comment on that? Is that your experience? Is that figure still accurate?

**Dr Brian Smith (Scottish and Southern Energy):** That has been the experience of a number of developers so, yes, it is probably not far wrong.

**Murdo Fraser:** Clearly, that is unsatisfactory from everybody's point of view: it is unsatisfactory from your point of view, it is unsatisfactory from the point of view of developers and it is highly unsatisfactory from the point of view of local communities. Our experience as members is of being heavily lobbied, as you can imagine, by people living in the vicinity of areas for which there is a planning application. The application may have a small chance of progressing to an actual development, but, nevertheless, people are concerned about visual impact and the potential impact on their property and property prices. How would you like the planning process to be improved? Susan Reilly said that she wanted an increase in the number of positive decisions, but how would you ensure more certainty in the planning process, so that people putting in applications are not doing so on such a speculative basis?

**Alan Mortimer:** In relation to how developers go about developing projects, the current guidelines from the Scottish Executive—national planning policy guideline 6—are quite good. They are criteria based and clear on how local authorities should assess the impact of a wind farm application.

We have ideas on improving the efficiency of the process, one of which relates to planning fees, which Susan Reilly mentioned. Local authorities occasionally struggle with resources; the current planning application fee for a wind farm, which is about £10,000, is nothing like enough to cover local authorities' resource requirement to deal with an application as it moves through the process. We have suggested increasing the fee to help to pay for the process.

We have also suggested wider changes that could help. We would be cautious about strategic locational guidance, which has been mentioned this morning. At a national level, where perfect knowledge of local issues does not exist, setting aside preferred areas for development would not necessarily increase the resource, because each development is assessed on the local issues and will face the same criteria, so the successful number would not change. Developers would tend

to avoid areas that were designated as sensitive, but such areas can sometimes accommodate sensitively designed renewables schemes. Overall, such a move would limit the resource.

Regional targets that are backed by regional resource assessments that include local knowledge of the key issues would be good. At the moment, local authorities say that they are unsure what their area's contribution to national targets should be. That uncertainty sometimes leads to unnecessary delays and refusals.

Guidance to local authorities on their areas' contributions to national targets would be good, but we put several provisos on that. Those targets should be set by a national body, albeit one that takes into account regional resource assessments. The targets should be reviewed regularly; we expect them to be revised upwards as renewables technology becomes more viable. The targets should also be a material planning consideration for local authorities.

Such guidance would change the mindset in local authorities, by giving comfort that what they are doing is reasonable and in line with what is required nationally. That would improve success rates and timescales. With those provisos, regional targets would be a good idea.

**Murdo Fraser:** Before I ask Scottish and Southern Energy whether it agrees, I will ask about your comment that the current guidelines are quite good. As only one application in eight succeeds, I suggest that the system has a major problem somewhere.

**Alan Mortimer:** We need to be careful, because the figure of one in eight relates to the early development stages. Projects drop out of development for all sorts of reasons, which do not only involve planning. I am sure that the success rate from planning application to planning approval is an awful lot better than one in eight. Projects drop out even before they reach the application stage, as developers investigate and find an environmental or technical issue or fail to sign up the landowner, for example.

**Murdo Fraser:** Does Scottish and Southern Energy want to add comments?

**Dr Smith:** Factors that are external to the planning process have an impact on the planning success rate. Obviously, local concerns are raised when a development is mooted in an area. Argyll and Bute Council cited its experience that once a development is operating, the impacts are not as great as people had feared. That was one result of an early Scottish Executive survey of public perceptions of wind farms. Some perceptions weigh heavily on the people who make planning decisions.



The Renewables Advisory Board, which is the DTI's equivalent of the forum for renewable energy development in Scotland, is developing a campaign to win hearts and minds, to try to turn the silent majority into a more vocal majority. At the moment, we primarily hear the vociferous minority. That voice can weigh heavily on decision makers. Internal and external factors have an impact on the success of the planning process.

**Murdo Fraser:** I have one more question, which is on a slightly different topic and relates to the convener's question about new technology. I will ask my question robustly, so the witnesses should feel free to respond as robustly as they wish.

You do not develop wind farms or encourage their development altruistically. You do it because the Government has forced your hand by introducing the renewables obligation. You are going into onshore wind energy because it is the cheap option. It is much more cost effective than developing some of the newer technology, such as wave and tidal power. Despite concerns about the visual impact and tourism—whether we agree with those concerns or not—wind farms are the cheap and easy way in which to meet your obligations.

Given that you have had to respond to Government pressure and action, why should the Government not take the same approach to the new technologies and try to force you into developing wave, tidal and biomass power? Mr Mortimer said that he thinks that the way forward is through capital grants, and I quite understand that. No industry in the country does not want the Government to give it more taxpayers' money and to pay it to do what it should be doing anyway. Given that the ROC system has forced you to go into wind farms, why can we not use that system to force you into wave and tidal power, too?

**David Sigsworth:** I take issue with your suggestion that we have been forced to go into wind farms. There is an alternative, which is that we can buy our way out by paying the fine. We moved into wind farms because the project has an economic benefit and a return.

You must recognise that the best available technology that does not involve any excess cost—that is the benchmark in the DTI's white paper on energy—is combined-cycle generation from gas, at about £400 a kilowatt. We are talking about 50 or 60 per cent more than that for land-based wind power, so it is the ROC that makes that possible as an economic investment. For offshore wind energy, the figure is more than £1,000 a kilowatt and, for photovoltaic energy, it is about £10,000 a kilowatt. Those are the drivers and we have commercial decisions to make. If the Government can provide, through one mechanism or another, the right incentives for us to develop deep offshore wind power or wave and tidal

stream power, we will do so. My company is working with the Weir Group to consider marine investments and we have put up a pot of money to help the emerging technologies to mature and to break through as soon as possible. At the end of the day, comparisons will have to be made and the projects must meet the hurdle rates that our companies need to make an investment.

**Dr Smith:** The buy-out fund was set at a unified rate to try to cap the cost of renewable energy to the consumer. If differential rates were introduced, such as 5p per unit for marine technologies, the cap and the cost to the consumer would start to increase—ultimately, the consumer pays for the technology—and we would get into the game of trying to pick the winners. All generation technologies should be economic in their own right—they cannot survive in the long term through subsidy.

**Murdo Fraser:** May I interrupt you for a moment? The reason why we have wind farms is that that is exactly what the Government has already done.

**Dr Smith:** That is simply because thermal power stations are not paying the full cost of their production; they are not being penalised for the emissions that they create. That is where the emissions trading scheme comes in, because it will raise the cost base of the thermal power stations to its true level. The cheaper renewables could then be economic on a comparable basis, but the new technologies still need a driver to bring them in. As David Sigsworth said, Scottish and Southern Energy has joined the Weir Group in developing renewables technology ventures, but the wave and tidal technologies are a long way off and are uneconomic at the moment. They will survive only if the economics come down to a comparable level.

**Susan Reilly:** There is a motivation for everyone to consider the lowest-cost options, because all suppliers are faced with the obligation and, ultimately, all consumers will pay for part of it.

**Richard Baker:** My first question is almost a supplementary to the questions about planning issues that Murdo Fraser asked, specifically the point that there is no need to reconsider planning structures. However, Scottish Power's written submission refers to

"a significant deterioration in local authority approval rates".

You referred to the number of schemes that do not proceed. Is not that an indication that public opinion in communities where projects are being proposed is being taken on board and that the assessment of applications is adequately rigorous?

**Alan Mortimer:** Public opinion is not changing much, which is a factor. There are more objections

in total, but that is because there are more proposals for projects in objectors' back yards. Possibly the biggest factor is the one that I mentioned previously, which is local authorities' comfort level in knowing what they need to do to help to achieve national targets. That is the key issue that must be addressed. My guess is that that is the reason for the drop-off in pass rates over the past 12 months or so.

11:30

**Richard Baker:** So the drop-off is not because of the level of objections from communities—that is not the deciding factor.

**Alan Mortimer:** It is a factor, but it is understood—as you heard earlier from Argyll and Bute Council—that objectors are a vocal minority and that the majority are either not bothered or are in favour of projects. Once the projects are built, the evidence from various studies shows that approval from communities increases and objectors become a very small minority.

**Richard Baker:** My second question is on offshore wind power; your opening remarks suggest that you have a pessimistic outlook on it. I want to ask you about the potential for offshore wind power because the existing infrastructure for the old oil platforms in the North sea provides energy links onshore for the production of energy offshore. In fact, there is a proposal for a large offshore wind farm in the Beatrice field. I am not sure whether any of the witnesses' companies are involved in that, but I think that Scottish and Southern Energy is involved in a similar proposal in the Talisman field. That seems to me to be an exciting proposal that builds not only on the existing offshore infrastructure, but on the skills of people working in the communities onshore. Given the reliable wind speeds offshore, is there good long-term potential for offshore wind farms?

**Susan Reilly:** The key issue is the timeframe. There may be an opportunity in the long term for offshore wind power, but that will not help with current targets.

**Richard Baker:** Why, in that case, is Scottish and Southern Energy investing in offshore wind power?

**David Sigsworth:** I support what Susan Reilly said. In the short term, the Executive's targets for our companies and other suppliers mean that the only feasible major contributions by 2010-11 will be from what is left of the hydroelectric potential and from the second most mature technology, which is onshore wind power. All the other technologies are important and we will continue to work on them whether it takes five, six or eight years. We recognise that because hydro potential is running out and because of the density of

onshore wind permits, we must mature the other technologies. We expect our renewables obligation to keep growing, so we must work on the future technologies today. That is what our work in the Beatrice field is about. We are a 50:50 joint venture partner in that field and in the Talisman field. However, the earliest that the planned 1,000MW wind farm will mature is perhaps 2008-09.

**Richard Baker:** So that wind farm will not become economically viable until that point.

**David Sigsworth:** Some of the grants for the project are for putting up demonstrator masts to test the economics of the farm before we move to a full 200-turbine installation.

**Dr Smith:** The project is currently uneconomic and, in partnership with the Government, we are carrying out research so that we can figure out how to reduce the development's costs. The wind farm will be in very deep water and it will be more difficult to pin turbines to the sea bed there than it is at offshore wind farms in shallower water. Until we figure that out, the development will remain uneconomical.

**Richard Baker:** That is in the long term, so it is not correct to say that the development will be economically viable by 2008-09.

**Dr Smith:** We are working to establish whether it will be.

**David Sigsworth:** If the initial tests show that the investment will mature in that timescale, it would be the first offshore wind farm and we could exploit that fact internationally.

**Richard Baker:** That does not sound as if it is too far off—it would be five years away.

**David Sigsworth:** No, but in terms of fulfilling obligations, we and the other supply companies are gambling on the future. At the moment, the only secure means of ensuring that we can fulfil our obligations is through hydro power and onshore wind power.

**Richard Baker:** We all hope that the gamble will pay off. Good luck.

My final question is about security of supply in the long term. It goes back to what Jamie Stone said and I want to crystallise that point. Longannet could be closed in 2012 and there are no plans for any more nuclear power stations. You support our targets, but are they sustainable in the context of our building no more traditional power suppliers for the base-load energy supply?

**Dr Smith:** Capacity planning is a natural part of the electricity sector. A renewable-energy penetration of between 10 per cent and 20 per cent is not really a problem with the current system's structure.

There has been a lot of talk about how coal plants help to stabilise the system. That is true, but power stations go through a life cycle in the same way as everything else does. They are born as base-load power stations, they work through their life cycle to mid-merit, then they peak. When coal plants were built, they were initially base-load power stations, but they are going through their life cycles.

The introduction of the new electricity trading arrangements—NETA—in England and Wales caused SSE to move its gas stations from operating on base-load to cycling or shifting. That cycle will go on. The support for the system might evolve from gas generation.

New capacity will have to be built because our energy demand is increasing. If we move into a hydrogen economy, that energy demand will rise significantly. There is no free lunch: it takes energy to convert water into hydrogen and its other constituents. Our energy consumption will therefore go up enormously if we move to a hydrogen economy and we will need more power stations.

**Richard Baker:** Will they be traditionally fuelled power stations?

**Dr Smith:** Yes.

**The Convener:** Are there any incentives for a company to build one of those power stations?

**Dr Smith:** Yes. Each company has to balance its own requirements. Each day our trading floor will register how much demand we expect there to be on the system and how much generation we expect to have to put into the system. If we do not do what we say we are going to do, we are penalised. That system creates incentives for us to ensure that we are balanced—that is the market mechanism.

There might be a debate about whether the signal is long term enough. Recent generation prices have been suppressed and there has not been much interest in developing generation. Prices swing about—electricity prices can move very rapidly. If things become tight and supply is short, prices can rise rapidly, which can be a strong signal to invest. Government should certainly keep a close eye on the situation because no one wants to see the lights go out.

**Susan Deacon:** COSLA gave evidence to the committee that was supported and reiterated by Argyll and Bute Council today when it called for the development of a Scottish energy policy. Your companies now have considerable experience of working under the devolved arrangements with the Scottish Executive and the UK Government in their respective areas of responsibility and powers. Have you any comments to make about the wider

policy-making framework in relation to energy policy in general, rather than specifically in relation to renewable energy, and how it could evolve and develop to ensure that we proceed effectively?

**David Sigsworth:** At the moment, energy is still a reserved matter and the current drivers of progress are the energy review white paper and the UK Energy Bill. Energy efficiency has been mentioned this morning. For the benefit of members, I would like to tell them about likely contributions to the future energy situation that the white paper outlines.

Renewables will provide 20-odd per cent of the carbon benefit that is pursued in the white paper and energy trading will probably provide 30 per cent of it, but the big unknown relates to the 50 per cent improvement in energy efficiency that is required. Half of the achievement must come from energy efficiency and the change of momentum required to achieve that improvement will be huge. The best way to improve our environment is not to use energy, including renewables, in the first place. That is the big driver. There are huge economic opportunities for Scotland and the United Kingdom in pursuing the energy services that can achieve improvement in local authority and private-user markets. That is the biggest challenge that the Executive and the Parliament face. Energy efficiency is not a reserved matter; it is a devolved matter and the Executive and the Parliament have the opportunity to tackle it head-on. The challenge is as interesting, complex and rewarding as the renewables debate that we have had this morning.

**Alan Mortimer:** I concur with what has been said about energy efficiency; energy is largely a reserved matter and UK policy as set out in the energy review white paper appears to be well aligned with Scottish Executive policy in being driven towards an increasing share of renewables. I re-emphasise that everything else in the system remains important. Security of supply and maintaining that security will become increasingly important as we use more renewables. Currently, we cannot see the incentives to maintain the flexibility that is required, which will become a key matter.

**Susan Deacon:** Does either of you think that there should be a Scottish energy policy?

**The Convener:** There is silence from the witnesses; perhaps silence speaks volumes.

**David Sigsworth:** The DTI's white paper was published over a year ago and we still do not have a clear definition of how aims will be fulfilled. The situation in Scotland is equally challenging. This morning, we have heard a spectrum of views about how supply companies will fulfil the challenge that has already been given to us to

develop renewable energy. You keep asking us, "Are you going to do things here or there?" The Parliament has already set the hurdle for our customer supplies. There must be a certain level of renewable energy at certain dates, but currently the Government in Scotland and—to an even greater extent—the Government in England are not facilitating renewables developments at the rate that is required for us to do what is required of us.

There is a conundrum and we should consider whether writing a policy would help us. We can see even from a small agenda that there is a big mismatch between what has been set as an objective and what we are achieving. The Parliament and the local authorities are helping us to try to catch up.

**Susan Reilly:** We agree that we need to pay attention to certain Scottish issues, which we have mentioned. In particular, as we move into the Great Britain-wide trading system, we must be careful that, in comparison with generators elsewhere in the country, Scottish generators are not discriminated against and that renewables are not discriminated against.

**Christine May:** That leads nicely to the two issues that I wanted to raise. The first relates to what you and the witnesses who will follow you have said about the potential damage that could be done by increasing the cost of access to the network. Will you comment on the work that is needed to upgrade the grid system to take account of smaller and more peripheral projects coming in? Who should meet the costs that are involved? Should such matters be determined on a national basis or should they be considered application by application? I will ask about emission control afterwards.

11:45

**David Sigsworth:** Scottish Power, the National Grid Company in England, and Scottish and Southern Energy have put together plans to provide a road-map for rewiring the United Kingdom to make harvesting of renewables possible throughout Britain. Those plans add up to billions of pounds; the work has been done. We talked about Argyll and Bute's constraints and there are constraints further north that will prevent access to the northern isles and the Western Isles.

For all of those, we know globally about the investments that will be required. The issue is that, if we were to follow the practices of the past, those costs would be passed on to the customers within the transmission area, whether it is Scottish Power's transmission area or Scottish and Southern Energy's hydro territory. That is obviously unfair—given that the renewables

developments about which we have been talking will have an impact throughout Britain—because ultimately, we have a Scottish target and a British target for the size of our renewable-energy commitment. We certainly expect that those costs will be socialised over the whole UK, but the plans are laid and, as I said, Scottish and Southern Energy this morning expressed its views on the first key investment that will allow up to 2,000MW of renewables capacity to come down into Scottish Power's territory and potentially further south.

**Christine May:** Does Scottish Power want to add anything to that?

**Susan Reilly:** I will add one comment on timing. To get planning consents for wind farms is hard enough, but to get planning consents for expansion of the grid is another issue. I think that planning consent for the interconnector between Scotland and England took in excess of 10 years, so we could be looking at further delays unless we have a cohesive and quick approach to agreeing how we will go about expanding the network and how it will be funded.

**Christine May:** Would you support the call, which we heard from one set of witnesses, for that investment to be made nationally by the Scottish Executive, if possible, or by the UK Government?

**Susan Reilly:** The important thing is that the costs be spread over the whole UK, which will ultimately benefit from renewable energy and achievement of targets. I do not have a strong view on the mechanism for achieving that, but it is important that the objective be agreed.

**David Sigsworth:** It is worth stating that, without such investment, the bulk of renewables development cannot take place. It is as simple as that.

**Christine May:** You made the cost argument well in the papers that you submitted.

I will move on to flexible thermal plant and the need to reduce emissions from existing base-load and thermal plant. Some pilot projects on co-firing are under way. Will either of you comment on discussions that you have had with the Scottish Environment Protection Agency and Ofgem on getting permissions for those pilots, on what difficulties there have been and on whether there is anything that we can do about those difficulties?

**Susan Reilly:** I will mention one difficulty that we have on co-firing in relation to waste-derived fuel. The Executive and SEPA are being helpful to us but, although waste-derived fuel is environmental friendly, there will come a point at which we will not be allowed to continue to use it under the co-firing rules.

**David Sigsworth:** We are still looking into co-firing issues at Peterhead, but we would probably

use a liquid or oil-based biofuel. However, we have not discussed the matter with SEPA.

**Christine May:** Last night, David Sigsworth and I talked about the levels of methane that exist in former underground coal works and other works. Will you tell the committee a little bit about that? How might harnessing that gas help to reduce emissions? Would doing so have any commercial possibilities?

**David Sigsworth:** Generation from coal mine methane is one of the small but very viable and interesting technologies. Any project that uses methane from landfill or a working coal mine for generation receives an ROC. Usually, when a coal mine ends its useful duty, the shaft is capped and a pipe inserted into the top of it. From then on, methane vents to the atmosphere.

As far as global warming is concerned, methane is 23 times more pernicious than CO<sub>2</sub>, which means that the environmental benefits of stopping methane emissions from a redundant coal mine are very substantial. In fact, it could be argued that the kilowatt of generation that is used to stop those emissions gives a better carbon effect than replacing thermal generation with a wind turbine. However, we cannot reach the point at which we can get our arguments across to the DTI. We have gathered a lot of support for those arguments, particularly in the light of the fact that one lot of methane is allowed for generation purposes while methane that has been venting away every day has not been stopped. I have campaigned hard to ensure that that particular element is included in the Kyoto inventory and so can receive an ROC. Indeed, that could still happen.

**Chris Ballance:** In so far as you are aware of its provisions, to what extent will the UK Energy Bill, if passed, address the Scottish issues in relation to the grid and transmission that Susan Reilly raised?

**Susan Reilly:** We hope that there will be some movement towards our view. However, I do not think that we will have a situation in which we will not be discriminated against.

**David Sigsworth:** The fact that the UK Energy Bill paves the way for the British electricity trading and transmission arrangements is the key to current consultations on grid access and embedded generator costs for using the system. In fact, that loose connection has put the consultation in place. I hope that we will have the committee's support in arguing very strongly that we must change the minds of consulting organisations. As our submission shows, we have very firm views on charges and on how we can achieve comparability with England.

**Chris Ballance:** I suppose that a statement on page 3 of Scottish Power's submission is linked to charges and costs. The submission states:

"The investments required to meet renewable generation targets are significant and this cost is contributing towards rising electricity prices."

Will meeting the targets increase electricity prices and, if so, by how much?

**Susan Reilly:** It is inevitable that the cost will increase, given the environmental measures that are being put in place in relation to renewables, energy efficiency and expansion of the grid to meet renewables targets. Our estimate, taking into account all those measures, is that consumer prices could increase by about 15 per cent by the end of the decade.

**David Sigsworth:** I do not disagree with Susan Reilly's assumptions, but it is worth saying that the energy white paper suggests that the measures will produce a 5 per cent increase, and that we heard yesterday that the emissions trading issues that were announced could lead to a further 3 per cent increase. I suspect that many other costs to suppliers will come through and that the cumulative increase will be more than 8 per cent. I think that the sort of figure that Susan Reilly suggests is accurate.

**Chris Ballance:** I have two technical questions. I realise that, because they are technical, you may have to get back to the committee in writing, if that is all right.

**The Convener:** That will be fine.

**Chris Ballance:** I am interested in the difference in anticipated output between different locations. In other words, if a turbine is on an ideal hilltop, what is its anticipated output in comparison to the same turbine on an ideal lowland brownfield site?

**Alan Mortimer:** Productivity is sensitive to topography. The site that committee members were on yesterday is one of the best—as you know, as you could hardly stand up.

Capacity factors for the sites that we consider still to be viable vary from the high 20 per cents up to, at the very best, the high 30 per cents of capacity factor: that is per cent of peak output over the year. The low brownfield sites that may remain viable with capacity factors in the high 20 per cents sometimes benefit from reduced capital costs if there is an existing roads infrastructure and an easy connection to the grid. That also needs to be factored into the equation.

**Chris Ballance:** I am not sure that I can work out the answer from what you are saying. Are you saying that lowland sites are as economically viable as hilltop sites because they are cheaper to build in the first place?

**Alan Mortimer:** No. There is still a difference, but as long as the lowland site remains viable within the obligation it is something that we can

look at. The difference in productivity can be as much as from the high 20 per cents to the high 30 per cents—that is about 50 per cent in terms of output of turbine. There can be some savings in the turbine classification: turbines that are designed for the very high wind speed sites are a little bit more expensive because higher-grade steels and so on are used to maintain their 25-year life. Those factors can help to offset the difference and close the gap, but the gap is still significant. The issue is a key one for us when we are designing wind farms on a project scale, because moving turbines around within a site can significantly affect their productivity and their visual impact—trading those two factors off is a big aspect of designing a wind farm.

**Dr Smith:** We are looking at some sites up in Shetland, where the load factors will get into the 40 per cents. However, that has to be counterbalanced by the cost of getting cable up there. Shetland is an island system—there is no cable there.

**Chris Ballance:** We have received a briefing that current capacity in Scotland is 10,000MW and the load factor about 57 per cent. If we move to the 40 per cent renewables target, would you expect the load factor to change considerably? If in 20 years' time we have the same level of use of electricity, would the installed capacity need to be considerably higher to keep the lights on?

**Dr Smith:** National energy consumption is about 360TWh. If you assume something like a 1 per cent growth in energy each year, that equates to about 1,000MW of additional capacity if you look at it being supplied by renewable energy. There must be a lot of movement just to keep still and keep pace with growth.

**David Sigsworth:** Your question is complicated by the fact that the development of renewables will increase the amount of embedded generation; that in itself will alter the way in which the system is managed and the requirements are fulfilled. The question is complex and if the committee would like us to reflect on it, we would be happy to drop you a note.

**The Convener:** That would be helpful, thank you.

I have a final quick question, on the upgrade to the grid between Beaully and Denny. It struck some of us that those were two strange places between which to shunt a lot of electricity. Is it just a quirk of the grid, in the same way that Crianlarich is a major destination on most road signs?

12:00

**David Sigsworth:** It is where the primary substations are for the current 132kV network.

That is the major constraint on bringing electricity from some of the most prolific wind areas down to the central belt. The grid will be reconstructed as quickly as possible to a 400kV standard.

**The Convener:** I thank the representatives from Scottish Power and Scottish and Southern.

Our final panel of witnesses this morning—or, rather, this afternoon—are Robert Forrest, who is the chief executive of the Scottish Renewables Forum, and Maf Smith, who is the forum's development manager.

**Maf Smith (Scottish Renewables Forum):** I will say a few introductory words. We are an industry forum, representing the views of developers and organisations that are involved in renewables across Scotland, across technologies and across company sizes. I am a full-time member of staff with the forum; Robert Forrest is our chief executive, but that is more his hobby. His full-time job, I guess you could say, is as a hydro and wind power developer. He has direct experience in some of the things that we will talk about.

We will focus on issues relating to mature technologies and overarching policies. We class wind and hydro power as mature. Members of the forum on the research and development side have been invited back to the committee, and they will consider the emerging technologies in more detail.

This debate is timely, as climate change is a pressing issue. There is an opportunity cost. The cost of doing nothing will impact on Scotland in environmental and economic terms, but there is a cost of change. We need to recognise that and balance the two. The debate on energy efficiency and renewables, which are not mutually exclusive, is important; they are two sides of the same coin.

We feel that the targets are achievable. Reaching the 2020 targets will require a mix of technologies, as many people have noted to the committee, and that will require extra support. We should not assume that we will reach the targets. By themselves, targets only sit on paper; it is the actions behind them that are important.

We should note that the targets are only for electricity generation. Electricity generation makes up only 20 per cent of Scotland's energy use, so the 40 per cent target represents only an 8 per cent target for Scotland's overall energy needs. Other things have to be looked at. The heating sector is a more complicated market than the electricity market—that may be why electricity was done first—but it is ready to have targets set. Financial mechanisms could then be put in place to help to achieve those targets for heating.

We urge the committee to consider how different Government objectives can be balanced.

Renewables is just one Government and Executive target, but there are many others. The targets can cut across each other or they can work in tandem. Examples would include wider economic issues for Scotland; wind and tourism have been discussed in that regard. We have commissioned research on that and we would say that, with the right decision making, wind and tourism can live well together; our research demonstrates that. Scotland does not have to say, "This is an either/or situation."

We have heard today about the development of the grid. It is important that the grid is allowed to develop and is regulated in a way that will not frustrate the achievement of renewables targets. There is a role for the regulator, Ofgem, and National Grid, the proposed Great Britain operator, in ensuring that they do not frustrate all that we, and the United Kingdom Government, are trying to achieve.

Nature conservation policy is important—it is the key to ensuring that Scotland remains a good place to visit and that it has a thriving environment. When the water framework directive was enacted in Scotland last year, the minister, Allan Wilson, said that it would not impact on hydroelectricity. However, the way in which that legislation is being implemented raises concerns for the hydro industry. A balance needs to be struck.

Other key issues are community support—and community benefit—and community opportunity. Community benefit is about how communities can be supported and enabled to become involved in renewables developments. An important issue in that regard is what more can be done to help crofting communities that take part in renewables developments in wind and hydro.

In relation to planning, we have heard a lot about strategic environmental assessment. Our view is that that will not take away the work load of local authorities and will not help in local authorities' decision making. Instead, the important thing is local guidance, primarily through local or strategic plans, that sets out what an area can do and what is appropriate within an area. Also important is proper resourcing for planning authorities and other agencies such as Scottish Natural Heritage, to ensure that they are able to play their role in working with developers.

There are proposals from the Executive about moving the consents team, from the consents process under section 36 of the Electricity Act 1989, out of Glasgow. We feel that that would be very damaging, particularly at a time when the team is busier than ever, because it would mean closing the team, re-recruiting and starting again. Moving the consents team would, in effect, mean a block on a certain class of planning applications for wind and hydro.

This is about the environmental and economic benefits. The economic benefits are about jobs for Scotland. Jobs follow opportunities, and opportunities come from the projects that are built, which are not necessarily the projects that we see in planning. There is a fairly modest build rate, and a fairly small throughput of projects. It is important that we work out ways of ensuring a regular run of projects, not only in hydro and wind but in other technologies; that is how other opportunities will be realised. Otherwise, opportunities just remain potential and, if we are not careful, we will have missed the boat.

**The Convener:** You mentioned planning and section 36 consents. Basically, for anything over 50MW, the Executive rather than the local council makes the decision. That happens for historic reasons that have nothing to do with wind farms, but which relate to big power stations. Is suggesting that that regime should continue not, in a sense, taking away the democratic input to consents? It is ironic that, while local people, in theory, have control over small wind farms, the bigger—and therefore potentially more unsightly or more intrusive—the wind farm is, the less control they have. Is that a sensible approach?

**Maf Smith:** As you say, the wind industry inherited that regime from other parts of the power sector. However, developers work very closely with planning authorities on all scales of development. Developers do not see the planning process as bypassing local authorities. It is very important to get local authorities involved, and to get them signed up to giving their consent. If they do not, the process has to go to public inquiry. Nobody wants that because it means delay and uncertainty for projects. You referred to the 50MW banding, but different technologies have different bandings. All new hydro plant above 1MW must be authorised by the Executive. That discrepancy seems odd to us.

In general, we can see that things are working, apart from the fact that local authorities receive no planning fee for their involvement under section 36. The case load is almost the same for them, yet the final decision rests elsewhere. We support calls for the resourcing of authorities to allow them to engage better in the section 36 procedure.

**The Convener:** We can accept that point. However, a previous witness asserted that some developers deliberately structure their wind farms over the 50MW limit, simply to ensure that it would not be the local council that would be asked to give consent.

**Robert Forrest (Scottish Renewables Forum):** Wherever the threshold is set under a section 36 system, there will inevitably be cases in which people will play the system by going higher or lower. In some examples, people have deliberately

kept below 50MW. Some 49MW planning applications have been made, in a deliberate attempt to keep things in the local system and subject to a local decision.

I would not say that we accept that section 36 is undemocratic. If the local authority objects to the proposal, that triggers a public inquiry. In effect, there is a second tier of the democratic process, as the matter still goes before the local authority for its decision, and it then goes to the Scottish Executive. A member of the public who has a view on a project has two bites at the cherry. They can write to their local authority and get representation there, and they can contact MSPs or contact the Scottish Executive directly and make their view known with them.

I do not believe that the section 36 arrangements take democracy away from the system. There seems to be some value in having a strategic national view over decisions on larger projects. The challenge is to draw the line or make the threshold somewhere. So far, we have not seen evidence to suggest that the 50MW line needs to be moved. Although the figure is historical, we have not seen a specific problem with it.

**The Convener:** Do you know offhand how many renewable projects over 50MW there are?

**Robert Forrest:** Currently, 31 applications have been submitted under the section 36 process and are live in the system. They cover a mixture of hydro and wind projects—I think that there are 25 wind projects and six or seven hydro projects. Five projects have passed through the system and come out the other end.

**The Convener:** How many applications have been rejected?

**Robert Forrest:** So far, none has been rejected. It is hard to draw any conclusions from that, however, as so few projects have come out the other end of the system so far. Although none has been rejected, four or five applications have been in the system for a very long time and have not reached a conclusion because of issues that remain to be resolved. It is not the case that blanket approval is given under the section 36 process. The projects that have come out the other end have come from applications whose case was proved in a relatively short timescale.

**The Convener:** A cynic might say that, if the Executive has set itself a fairly ambitious renewables target, it is very unlikely that it will turn down any renewables project.

**Robert Forrest:** We fully expect the Executive to turn down some projects. We would be surprised if it approved all the projects that came before the section 36 process. If one body is

setting the targets and making the decisions, there is a danger that that system could be abused, but it could be argued that the same would follow for other strategies. Similarly, if a local target has been set within a particular local authority area, it might be suggested that that could lead to less than objective decision-making in the local system.

**Murdo Fraser:** Your written submission, which deals with planning applications for onshore wind projects, says on page 6:

“We are not of the view that a Strategic Plan would assist authorities ... Decisions on wind farms must be done on a case by case basis.”

That seems to be a little bit at variance with the evidence that we heard earlier from Argyll and Bute Council and the power companies. They were thoroughly in agreement with you in opposing a national strategic plan, although they expressed support for regional strategies, developed at local authority level. Will you comment on that? Would you be inclined to support regional strategies and would you view that approach as more acceptable than having a national plan? Are you opposed to the strategic plan approach altogether?

**Maf Smith:** Our problem with a national plan is that it would, by necessity, be so all-encompassing as to be unwieldy. It would be difficult to drill down and get the necessary information to make the decisions. Argyll and Bute Council said in its submission that it seeks control in its own area. It pointed out, rightly, that it has the appropriate knowledge and understanding of that area with which to make decisions.

Regional targets will work if they are set as benchmarks so that people can progress up; they should be seen not as stifling, but as something that allows opportunity. As the Scottish Power representatives said, targets can increase over time. If targets were to act as a straitjacket throughout renewables projects, that would be a problem. Targets should not be so rigorous that they do not allow us to deal with the sort of case-by-case issues that arise when projects are proposed, in particular when consideration is being given to what is appropriate and realisable in local areas.

12:15

**Robert Forrest:** Perhaps it is worth adding some experience on this point. Quite a lot of local authorities in Scotland have had renewable energy plans that have gone into the details of zoning, preferred areas, less-preferred areas, sensitivity maps and so on. Nearly all those strategies—some of which were started 10 years ago, and some more recently—were withdrawn fairly rapidly after they were introduced, mainly because a



range of complex technologies is involved. How does one draw up a plan that covers a single turbine installation as opposed to a 200-turbine wind farm? Strategies have to deal with such matters and with the technology, which, over the past 10 years, has changed dramatically. To some extent, we are in a different field from those who deal with strategies for housing or indicative forestry—people have a pretty good idea of what trees will look like in the future.

Experience shows that when those zoning policies were put together, projects in the preferred areas received exactly the same level of scrutiny in terms of environmental assessment and planning, and many of them were found to be unfavourable. Equally, some projects went ahead in less-preferred areas and showed that projects can survive in those places.

One of our concerns is that any zoning strategy or map that is based, as Maf Smith said, on a broadbrush approach, tends to fail when tested. We are concerned that our members do not end up with a policy that says, "If you're in a preferred area you've just got your normal day job to do, in terms of proving the case for your project, but if you're in any of the other areas, you've now got an additional hurdle to cross to show why that project should go forward."

We welcome targets when they are used to stimulate debate and to draw out ideas on where projects should go ahead, but the targets should be minima, not maxima. They should not be used against further development if it can take place in a particular area.

**Murdo Fraser:** I will give you an example in which a regional strategic approach might assist. In my area in the Ochils, there are something like eight proposed applications. Most people in the area would say that one or two developments in the Ochils might be acceptable, but eight would be way above the limit that most people would deem acceptable. All that the local authority can do is to respond on a case-by-case basis and approve or reject developments; it cannot take a step back, look at the situation strategically and say, "If we accept that we will have one or two developments, where are the best locations?" Would not that be preferable to simply responding to a developer-led process?

**Maf Smith:** If you imagine starting with that area as a blank canvas and considering potential opportunities or capacity, it is hard to know in advance what the proposed schemes might be. For example, are you talking about large schemes or a number of small turbines?

We need to make use of guidance, in particular with regard to how much development is appropriate in a particular area and what the

cumulative impact will be. Murdo Fraser talked about that. That would benefit from being sketched out in guidance. The Executive could co-ordinate with different agencies and provide supplementary information to local authorities on what it means. Local authorities could use that guidance and judge what comes before them. However, second-guessing what might come before them might mean trying to fit a round peg into a square hole. If local authorities had tools with which to assess schemes as they came forward, they would get all the information and could make a decision at an appropriate level.

**Christine May:** Thank you for a robust submission, which contained some very definitive statements. At the bottom of page 3, you say that you do not think that the objectives of BETTA will be achieved, but you do not ask the committee to do anything. Do you think that enough is being done, or are you waiting for us to ask what you think we should do?

**Maf Smith:** We always welcome being asked. BETTA is an interesting issue. Primarily, the policy area is reserved. However, despite its title—the British electricity trading and transmission arrangements—BETTA impacts on Scotland rather than on England and Wales. It involves the extension of the English and Welsh arrangements to Scotland, with some modifications. England and Wales get to stay as they are, but Scotland has to change. There is a lack of movement from the regulator on how to set up a Great Britain charging arrangement. The English and Welsh charging arrangements do not fit when we try to stretch them out across the new area that BETTA covers. It is important that the Scottish perspective is taken into account in the deliberations.

Responsibility for BETTA lies with the UK Government. We are concerned about that and have examined the issue separately. We would welcome MSPs taking action and talking to MPs about the matter. There is a role for the Executive in ensuring that the Scottish interest is promoted and that the DTI, which is the Government department with primary responsibility for BETTA, takes that interest into account. We must ensure that we do not have a system that works for England applied to Scotland and that we get a British system. The reason why we note our concern but do not make any recommendations is that the issue is not devolved.

**Christine May:** Surely if the Scottish Parliament is to fulfil its functions it must be able to take a view on reserved issues and to express that, where the interests of Scotland are affected. That is my view, and I hope that we will do so.

**Maf Smith:** We support the Parliament's taking a strong view on the need for the grid and on the importance of ensuring that British regulations,

under BETTA, do not create discrimination and that transmission charging mechanisms are not proposed that do not allow generation in Scotland. In their evidence, the witnesses from Scottish Power and Scottish and Southern Energy spoke about the levels of the proposed charges. We see those as discriminatory against Scottish generation and would welcome support in ensuring that they are not implemented.

**Christine May:** My second question relates to the other element of this inquiry—the economic potential of support for renewable energy. I refer to fabrication, manufacturing and R and D. It is no secret that I am looking to have a renewable energy park established at Methil in my constituency. However, there are planning and financial issues associated with that. Have you found those problems to be replicated in other areas? If so, what do you recommend should be done about them?

**Maf Smith:** At the start, the key is project development. Having projects on the ground allows contracts to be awarded to companies such as Vestas. The same rules apply to other technologies. The key issue is to have a healthy market that can bring projects to the point at which companies are able to spend money on buying turbines, commissioning hydro facilities or buying wave machines. That does not mean having a free-for-all system, but it means appreciating that decisions need to be made that produce projects. If there is a momentum behind that, we can start to build.

Vestas chose to invest after it had assessed the potential size of the market to which it could sell and established that it would not be too small. I know that there are firms at Rosyth that are using wave power, perhaps only on a temporary basis at the moment. If they had a larger market, they would be able to make investment decisions with security. As part of those decisions, they would consider issues such as grid regulation and planning. They would try to assess how stable and long term the market was.

**Robert Forrest:** If Scotland wants to grab the opportunity that lies before it to be a world leader in new marine technologies, for example, it must create the right environment for companies to want to be in Scotland. That comprises a range of issues. We must ensure that there is an electricity trading system that allows us to get power to the areas where there is demand and that there is a planning system that allows projects to be proposed, to be processed and to be successful. We need investors and technology companies to see that Scotland is the right environment for that to take place.

We do not really embrace the idea of taking a step back in relation to onshore wind and hydro

and doing a strategic environmental assessment, but we think that one should be done urgently for the marine technologies. We have no commercial proposals before us. In the offshore environment, the regime is totally different. It is not under the control of local authorities; it sits with central Government, the Crown Estate and so on. There is a huge opportunity to undertake the strategic environmental assessment now so that by the time that people want to put the prototype projects in the water, or float them, they know where they should go and they will not have massive opposition. We have approached Scottish Natural Heritage to work with us on that.

We can do a lot to create an environment that is conducive to new technologies. A question was asked this morning about how we stimulate the new technologies so that they emerge in the way that wind power and hydro power emerged. At the moment, there are challenges in relation to the new technologies that great Scottish companies are trying to meet. We do not have commercial wave or tidal devices yet, but it would be an absolute disaster if, having solved those commercial problems and having said, "Here is a viable device that we can put in the water," we could not agree about where such a device could go and we had arguments about whether it looked nice or whether it would impact on dolphins or whales. We need to pre-empt that, because if we do not, the danger for Scotland is that the technology will go to Portugal, Ireland or Canada. The challenge is integrated; it does not relate to just one topic.

**Chris Ballance:** I will pick up Christine May's point about transmission, BETTA and the UK energy market as a whole. You said that you feel that BETTA's aims will not be achieved and you set out more than half a page of reasons why, which is a fair bit of your submission. To what extent do you think that the UK Energy Bill will answer your fears? I am aware that the committee will consider the bill in a few weeks' time.

**Maf Smith:** In my opening remarks, I talked about the need for different Government objectives to be balanced. We feel that the Energy Bill should do two key things. First, it should be firm on discrimination in charging between Scotland and England and Wales. Given that we have different systems and that differences will remain once BETTA goes live, there needs to be a much clearer signal in the bill that such discrimination in charging cannot stand. Secondly, there must be obligations with regard to Ofgem's role as the regulator and the role of National Grid as the expected Great Britain grid operator. Currently, National Grid's prime objective is to develop and manage the grid at the lowest cost to the consumer, which is right and proper. However, it needs the secondary objective of supporting the

achievement of UK Government energy targets. Currently, we are seeing things coming out of BETTA and proposals for transmission charging that relate to only one objective and not the other, so that needs to be balanced. National Grid has to ask how it will help to achieve Government policies on renewables and Ofgem needs to be able to do the same. The Energy Bill needs to make that clear so that both agencies can go and do that work. If they try to do so at the moment, they will be going against the remit that the Government has set for them.

**Chris Ballance:** So your position is that the Energy Bill as it stands will disadvantage Scotland to a certain extent.

**Maf Smith:** Yes, because the bill assumes that BETTA will achieve its aims, which are to support development of the grid and to enable the connection of small generators, particularly in Scotland. The detail of how the agencies will implement that, which the bill cannot necessarily cover, will frustrate it. The agencies' objectives and what they have to do to implement the Energy Bill must be clarified.

**Chris Ballance:** Your submission says:

"the real omission is the lack of target for non-electrical technologies."

Why do we need targets for non-electrical technologies?

12:30

**Maf Smith:** The electricity market has 18 per cent and 40 per cent aspirational targets for Scottish renewable electricity generation. The UK Government target of 10 per cent drives the ROC market and is mirrored in the ROC system and the renewables obligation (Scotland). As the 40 per cent target is aspirational and seen as important, because it is creating interest in biomass, wave and tidal energy, why not have an aspirational target for a heating technology? We could then consider the regulatory or financial support measures that might be needed to meet that aspiration. Setting a target allows people to scope out what is possible.

We have discussed extending the ROC system, so it is worth making a few comments on that. The ROC mechanism obliges electricity suppliers to provide a proportion of their electricity from renewables. We cannot extend the ROC system to electricity from heat—that would not work and would muddy the system. We need an equivalent system that places obligations on the heating market. We urge the committee to consider the energy commitment schemes or the Executive's energy efficiency grant schemes, whose good work Steven Watson talked about. There is no reason why a similar set of grants and tariffs could

not be developed for a heating-based market to help to drive biomass energy in rural areas, many of which have vast forestry reserves and no gas, and solar thermal energy in urban areas, where housing associations and volume house builders have many opportunities.

Despite what is often said about it, Scotland has one of the best solar resources for the economic development of solar thermal energy in Europe. We can make better use of solar energy than Kent can. That might seem paradoxical, but it is true. The right support in heating targets, backed by measures that said how we could achieve those targets, would release that market and create the opportunity.

**Robert Forrest:** The comparison with the ROC system is simply to the carrot-and-stick approach that that system created. On the one hand, energy companies have a chance to make money, to invest in renewable technology and to make a return on that; on the other hand, the stick is that they are penalised if they do not do that. We need such an approach to heating technologies, because the technology and capability are out there, but companies that supply heating fuels or energy for heating have no incentive to do anything about it. We need a tangible measure to move the situation forward.

It is clear that the ROC system has been phenomenally successful. When it was introduced, questions were asked about whether the industry could respond to the 2010 target. It is now a serious expectation that the 2010 target might be met by 2005 or 2006. That shows that the industry is willing and able to meet such targets, but we need a mechanism to make that happen.

**The Convener:** You said that the water framework directive was probably having an adverse effect on hydro schemes. Will you expand on that?

**Maf Smith:** I will describe the water framework directive's impact on water users in all industries. The water framework directive sets a benchmark for the Scottish water environment and says that the environment's quality cannot deteriorate. Hydro—particularly small-scale hydro—involves temporary disruptions to water flow, because water is taken out and returned, which changes what might be considered to be the natural flow. On a strict reading of the water framework directive, that would be classed as a change, so it would not be allowed.

However, derogations from the directive can be obtained. They represent an acceptance of exemption from some parts of the water framework directive because something else is being done. Sustainable energy generation is one of the allowed matters, but that has not been

recognised. SEPA sets the bar for using the derogation high, which takes out a class of schemes, or it sets conditions for how hydro works.

Existing hydro schemes, such as those that Scottish and Southern Energy manages, have been used for a long time and have proved their worth. Some dams and catchment areas are now in sites of special scientific interest. We have experience of hydro and we know that we can do it. We can minimise the environmental impact to obtain other environmental benefits, yet over-zealous or too-tight implementation of the legislation, which was not meant to have an impact on hydro, could make hydro economically unviable, because the conditions are so strict that no hydro schemes are being proposed.

**The Convener:** Is that happening in practice, or is that a concern about what might happen?

**Robert Forrest:** That is happening in practice. SEPA has produced draft guidelines that implement the directive severely. The Water Environment and Water Services (Scotland) Act 2003 is only enabling legislation that sets the outline. At the implementation level, we are under pressure. Scotland has had a sustained small-scale hydro industry for many years that has developed projects that underwent rigorous environmental impact assessment procedures. We have assessed the ecological effect of projects and have developed those projects successfully. However, a greater obligation to protect the environment has been created. Such a requirement usually reduces the water that is available for us to take out of any river. That water reduction has a phenomenal economic effect on projects.

Unlike other technologies, hydro does not have flexibility. If a wind farm has a high grid-connection cost, the developer can consider sticking on another wind turbine or two. Hydro takes the water and the fall that are there, so it does not have flexibility to respond. The danger is that much of Scotland's hydro resource will be sterilised unnecessarily. In some places, appropriate strict ecological control should be adopted. Some rivers should not have hydro schemes. We are not asking for carte blanche to develop everywhere, but we are concerned about unnecessarily strict implementation of the directive.

**The Convener:** That is helpful. We might examine the matter further. I thank the Scottish Renewables Forum witnesses for their evidence.

The committee has enjoyed very much its visit to Campbeltown. On behalf of the committee, I express my appreciation to the people of Campbeltown for the hospitality that they have shown us. We will certainly recommend the area to other Parliament committees.

*Meeting closed at 12:36.*

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