ENVIRONMENT AND RURAL DEVELOPMENT COMMITTEE

Wednesday 22 February 2006

Session 2

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ENVIRONMENT AND RURAL DEVELOPMENT COMMITTEE
6th Meeting 2006, Session 2

CONVENER

*Sarah Boyack (Edinburgh Central) (Lab)

DEPUTY CONVENER

*Mr Mark Ruskell (Mid Scotland and Fife) (Green)

COMMITTEE MEMBERS

*Mr Ted Brocklebank (Mid Scotland and Fife) (Con)
*Rob Gibson (Highlands and Islands) (SNP)
*Richard Lochhead (North East Scotland) (SNP)
*Maureen Macmillan (Highlands and Islands) (Lab)
*Mr Alasdair Morrison (Western Isles) (Lab)
*Nora Radcliffe (Gordon) (LD)
*Elaine Smith (Coatbridge and Chryston) (Lab)

COMMITTEE SUBSTITUTES

Alex Fergusson (Galloway and Upper Nithsdale) (Con)
Trish Godman (West Renfrewshire) (Lab)
Jim Mather (Highlands and Islands) (SNP)
Jeremy Purvis (Tweeddale, Ettrick and Lauderdale) (LD)
Eleanor Scott (Highlands and Islands) (Green)

*attended

THE FOLLOWING GAVE EVIDENCE:

Stuart Goodall (Confederation of Forest Industries (UK) Ltd)
Chris Inglis (Forestry and Timber Association)
Steve Luker (Scottish Forest Industries Cluster)
Hugh Raven (Sustainable Development Commission Scotland)
Jeremy Sainsbury (Forum for Renewable Energy Development in Scotland)
Fergus Tickell (Forum for Renewable Energy Development in Scotland)

CLERK TO THE COMMITTEE

Mark Brough

SENIOR ASSISTANT CLERK

Katherine Wright

ASSISTANT CLERK

Jenny Goldsmith

LOCATION

Committee Room 4

Scottish Parliament

Environment and Rural Development Committee

Wednesday 22 February 2006

[THE CONVENER *opened the meeting in private at 10:06*]

10:59

Meeting continued in public.

Biomass Industry Inquiry

The Convener (Sarah Boyack): Agenda item 2 is our inquiry into developments in the biomass industry. I welcome our witnesses and members of the public and press. I remind everyone to turn their mobile phones to silent, so that nobody is embarrassed later on. This is the first of our evidence sessions in our biomass inquiry, the remit of which is to examine developments in the industry, with particular reference to how forestry and agricultural policy can support those developments. We have issued an open call for written evidence and have received several written submissions, which have been circulated to members and which are available on the committee's web pages, for the benefit of members of the public who are interested in following the inquiry. More submissions will become available as the inquiry continues.

Before we kick off the inquiry, I invite members to declare any relevant interests.

Rob Gibson (Highlands and Islands) (SNP): I am a member of the Scottish Crofting Foundation, which might impinge on the inquiry.

The Convener: I have been doing some work on a member's bill on energy efficiency and microgeneration.

Mr Mark Ruskell (Mid Scotland and Fife) (Green): I am a member of Reforesting Scotland.

The Convener: We can work out what the interest is there—we are talking about cutting down trees.

We now come to our first panel of witnesses. We have Hugh Raven, who is a commissioner from the Sustainable Development Commission Scotland. Dr Bernie Bulkin from the Sustainable Development Commission was scheduled to attend, but he is unable to be with us as he is ill. We also have Fergus Tickell and Jeremy Sainsbury, who are members of the biomass energy group of the forum for renewable energy development in Scotland, which is commonly known as FREDS. We will not have opening statements, as members have received the written evidence from the Sustainable Development Commission and a copy of the executive summary of the FREDS biomass energy group report, "Promoting and Accelerating the Market Penetration of Biomass Technology in Scotland", which was published in January 2005. We have lots of background papers and a large number of written submissions so, without further ado, we will begin questions.

Richard Lochhead (North East Scotland) (SNP): I have two questions, the first of which is a general one about the potential for biomass to contribute to Scotland's energy needs. Part of the committee's remit is to hold the Government to account. Now that we are seven years into devolution, what are your comments on the progress that has been made during those seven years? Could we have made more progress, given that the biomass industry in many other small countries in Europe seems to be much further ahead than that in Scotland?

Hugh Raven (Sustainable Development Commission Scotland): I would have to say on behalf of the commission that the Executive has not taken up all the available opportunities. We are encouraged by the recent announcement of plans for a capital grant scheme to assist with bioenergy. We are also encouraged by the minister's recent announcement of a strategy for renewable heat in Scotland. Several developments have taken place. Our written submission suggests that between 4MW and 5MW of installed capacity of renewable heat exists in Scotland, which is a reasonable start on which to build. However, the fact that there have been business failures in the sector has undermined confidence. Therefore, progress to date has been modest and there is definitely a need for further Government intervention. In that context, the committee's inquiry is particularly welcome.

Jeremy Sainsbury (Forum for Renewable Energy Development in Scotland): To put the issue in context, the renewable industry in general has been overwhelmed by the support of the Parliament. From the point at which we started seven years ago, energy policy in the United Kingdom has moved a huge distance. The Scottish Parliament has been sensible in building to the significant point that we have reached. In doing so, we have had to bring together what was a rather poor set of resource assessments to understand how biomass can be exploited. We have had to consider the planning system and infrastructure issues to understand what we are trying to support. Badly focused policies and support are worse than no policies or support,

because they create a false impression, which disappoints people and they disappear into the undergrowth.

We have the energy review coming up, but to date there has been fantastic support from the Scottish Parliament for biomass. That has built up over the years. The resource assessment has now been started and is being fine tuned. The building blocks are in place. Obviously, energy policy is still devolved, but the Scottish Parliament has learned to deal with that by grasping things over which it has control, such as planning, to deliver what it wishes to achieve. It has matured and is delivering for the industry. The industry is fantastically grateful for the support that it receives from the Parliament. Because of that support and the information that we have assembled, I believe that we stand a good chance of influencing greatly the way in which energy policy evolves in relation to biomass in the rest of the United Kingdom. We can punch well above our weight.

We have the resource. It is a differently focused resource and has a different structure, but we understand that and know how to deal with it in that context.

We could have done more—you always can—but many things have been done. The Scottish Parliament has not been idle in that regard in the seven years in which it has administered the country. It has demonstrated a lot of support for the renewables sector in relation to wind energy, wave energy, biomass energy and so on. A focus on biomass energy would be appropriate now. We do not want to have another false dawn. We have to get this right.

Fergus Tickell (Forum for Renewable Energy Development in Scotland): The positive messages that are being sent by the Executive are important in driving biomass forward. To answer Mr Lochhead's point, we would not have needed the FREDS biomass group if enough had been done to break down barriers and develop biomass energy in the past seven years or so.

There are barriers in place. Generally, policy has been driven from a UK perspective, which has tended to result in a concentration on short-rotation coppice as a driver for the biomass sector whereas, in Scotland, we are ahead of the game because we have a substantial and growing resource in the forestry sector.

Because of a lack of awareness of what is achievable—and achievable quickly—in Scotland, not enough has been done. However, through FREDS, the Executive's initiatives, the announcement of the renewable heat targets and so on, extremely positive messages are being sent out that will help the industry to meet its potential.

Richard Lochhead: I would have thought that Scotland has a unique opportunity among UK countries to realise its biomass potential, because of its profile. We now have the Scottish Parliament and renewable energy is seen as a devolved issue. However, the more that I have looked into it, the more I find that many of the issues that are important in this area are still reserved to London. That creates all kinds of anomalies and complications. Indeed, it is sometimes quite difficult to get a handle on exactly what is reserved and what is devolved in the context of renewable energy.

A year or two ago, FREDS was asked to look at biomass but was subsequently told that the UK Government wanted it to look at heat. To an extent, that undermined what was happening in Scotland. Capital grants, which are set up by the Department of Trade and Industry, are a reserved matter. That means that they and their qualifying criteria are decided in London, despite the fact that renewable energy is supposed to be devolved and even though you would think that biomass is an issue that could be taken forward under a devolved set-up.

Could you comment on those anomalies? Is there anything that we can do to improve that situation, which arises because the DTI has some minor responsibilities over some minor issues up here, such as what happens with grants?

Fergus Tickell: Most of us recognised that it was anomalous that FREDS could not consider heat. However, the biomass group in FREDS is reconvening next month with a specific remit to consider the matter of wood for heat and to examine the issue of future support mechanisms for biomass.

With regard to the capital grant scheme, I will speak on a personal basis rather than as a representative of FREDS. The DTI's bioenergy capital grants scheme has proved to be a significant disappointment to many of us who saw the fund as a useful driver for biomass development in Scotland. I am not sure how many members of the committee are aware that £66 million was allocated to the grant scheme and that in effect it was closed in October 2002, with all the allocations having been made. My understanding is that a very limited proportion of the grant fund has been spent on delivering projects. A significant chunk of the funding was allocated to projects that have not progressed. It would be useful if a significant proportion of that unspent capital grant could be made available to the Executive to provide support for biomass in Scotland.

The Convener: Is a report available that analyses the expenditure under the capital grant scheme?

Fergus Tickell: Not to my knowledge. I am not aware that the DTI has released that information.

Jeremy Sainsbury: It was a huge frustration to the FREDS biomass energy group that it could not deal with heat within its report. FREDS is examining renewable energy targets. As energy policy to date in the UK has been based on the belief that for "energy" we can read "electricity", the remit of our group focused on electricity. We tried to change our remit at the outset, but we were told that we could not. That is why we are reconvening now that the Ben Gill report has been published and now that the energy review offers a big opportunity for Scotland to play a part in bringing the heat sector further up the agenda. If the biomass sector is to expand, I have no problem with part of the electricity target of 450MW that we identified going towards the heat market. Any mature market will include small, medium-sized and large players—any market needs that. There is a place for electricity and there is definitely a very large place for heat. As I said, we were frustrated that we could not deal with heat, so we are reconvening to do that and will report back to FREDS.

The attitude that the Scottish Executive has taken to funding is completely different from that taken by its English and Welsh counterparts. A good example of that is what is being done with the non-fossil fuel obligation contracts and the Scottish renewables obligation contracts. The NFFO and SRO contracts generate revenue for the Government because the rates that are paid to the generators are less than what they can get in the market. The Scottish Executive has said that the money that is gained from that will go to support other renewable energy projects. In England and Wales, the amount that is likely to be raised is in excess of £0.5 billion, but the Treasury has nicked the money back and has not allowed it to be used in that way. The non-fossil fuel obligation could provide a large fund. We might ask the Treasury some questions about that if we have any influence there. Funds are being generated from renewable energy projects that are up and running.

The energy review and the fact that the FREDS report has investigated structuring the infrastructure elements such as planning provide us with a major opportunity. There are things over which we have control in Scotland. We have seen in the wind sector that if we get the infrastructure right, we can use the tools that we have in Scotland to be well ahead of England and Wales in developing the technology. By doing that, we can drive the English and Welsh agenda. We have the people, we stimulate the activity and we drive the agenda, so people move towards us. Over the past two years, English planning policy has tried to mirror Scottish planning policy on renewable power. Those things can be done and we are doing them in Scotland. In the light of the success that has gone before, we encourage the Executive to focus that activity on the biomass sector.

11:15

Hugh Raven: I want to re-emphasise what Jeremy Sainsbury said about the agency of the Scottish Executive on this matter. Mr Lochhead asked whether the tools to encourage the biomass sector are entirely at the disposal of the Westminster Administration rather than the Scottish Executive. Some of them are—there is no question about that. For example, there is an anomaly in the application of VAT on wood fuel. That is a Westminster issue and it must be resolved either there or in Brussels.

However, there are ample tools at the disposal of the Scottish Executive to ensure that the opportunities in Scotland are exploited. Three principal recommendations emerge from the work that the Sustainable Development Commission has done in Scotland. Given that the commission is a United Kingdom body, it considered the subject in the context of UK policy. Nonetheless, it concluded that the recommendations were all within the power of the Scottish Executive to meet.

The first recommendation is that we should establish targets to increase renewable heat. We have already heard reference to that; indeed, the minister has made an important announcement in that respect. The second is that there should be continuation of funding to encourage renewable heat, specifically through the Scottish community and householder renewables initiative—again, that is at the Scottish Executive's discretion. The third is that there should be a series of demonstration projects in Scotland to illustrate that the technology works and also to begin to build up the necessary portfolio of infrastructure to ensure that we get over the initial hump of required investment.

Mr Ruskell: It seems to me that public sector procurement offers a huge possibility in this respect. Around 300 schools are being built in Scotland at the moment, but how many of them are being installed with biomass heating systems? What is the panel's view on the role of the public sector in growing the market for biomass heating?

Jeremy Sainsbury: Although there has been a lot of good will in the public sector towards biomass, the sector has been fairly short on delivery. There are three elements in trying to make the good will deliver something. First, when projects go out to tender, the document should include the opportunity for biomass. When talking about heating systems in that context, I am referring not only to biomass but to ground-source

heat pumps and other renewable energy options; biomass may not always be the best solution. What is important at the outset of projects is that an encouragement of renewable energy is incorporated into the specification.

Secondly, not only does heating tend to be seen as a relatively small part of such projects, people tend only to see the amount of man hours and all the other difficulties that are involved in the maintenance of biomass systems. People who have been brought up in a gas world—or a coal or oil world—do not have the psychology of someone who is brought up in a biomass world. Nowadays, biomass is a clean and usable fuel; it is not the dirty, great lump of timber that used to come in from the forest, but that is how people still tend to perceive it. Education is needed.

Thirdly, if the bar is to be raised in terms of the use of biomass, people will have to know that they have security of supply. Up until now, biomass has largely been an imported product. The security, quality and consistency of supply have not been terribly good in the UK. That has to be improved.

The point that the FREDS report made about the early electricity projects and also its recommendation on the use of co-firing in the short term were to do with getting over what I call the infrastructure investment hump. In effect, we need to get the right bits of kit stuck in that enable people to produce pellets for the UK market.

If we look at the example of the Balcas plant in Northern Ireland—which Fergus Tickell and I were discussing earlier—we see that 200 projects have set up around the plant to burn the pelletised fuel that it produces. Making things happen in Scotland is a chicken-and-egg question: all the right elements are in place; we need only to get the right co-ordination. The public sector is definitely a part of that marketplace, but it not the only one. Public sector projects spend public money; the sector needs to know that the fuel resource is reliable. That said, renewable energy has to be properly specified in contract and tender documents.

Fergus Tickell: I re-emphasise the point about supply. It is very clear that the security of supply of wood fuel is a key risk element of any project in the public or private sector. I am not qualified to comment on public procurement policy, but it seems to me that, for private developers who get involved in public projects, risk is a serious impediment to the use of biomass in such projects. It is principally down to lack of familiarity with, and lack of market penetration by, the technology. Other witnesses will attest to the fact that the technology is proven throughout Europe, but it is not familiar here. Nevertheless, I firmly believe that the principal problem is the lack of security of supply, as there are no robust wood supply infrastructures in place.

Hugh Raven: I re-emphasise what Fergus Tickell has said. Confidence in supply is critical in encouraging contractors to consider biomass heating systems. There has been a relatively secure supply in north Argyll and Lochaber, and there have been a significant number of public sector installations there. For example, the upgrading of a number of community halls in that area was funded by the community taking the initiative and assembling a range of grants. In such cases, the community had relatively wide discretion in the specifications of the new building and I can think of two new community halls that have biomass space heating as a consequence of that.

Conversely, in the same area, a brand new high school was built three years ago in which the body of parents and the local authority wanted to install biomass heating. There was a ready supply, but it did not happen because of the complexities of the public-private partnership process—in particular, because the contractor did not have confidence in the technology. As I understand it, the problem was mainly lack of confidence in the technology and a feeling that installing a biomass system might delay the commissioning of the building by a few weeks. Consequently, that school is now heated by oil instead of by biomass, in spite of the overwhelming local preference for using biomass and the fact that there was a ready supply of biomass in the area.

Mr Ruskell: I have a supplementary question on that. You may be aware of the issues in Aberfeldy, Perthshire, where a group of people in the community want a biomass heating system to be installed in their new school. The school is being procured under PPP and will have to have two heating systems installed—one gas and one biomass—because of the issue of the security of the biomass supply, I presume.

The SDC is saying that we need demonstration projects and that we need to see biomass working across Scotland, outside areas such as Argyll. How can we get those projects up and running? The problem in Aberfeldy is that the capital infrastructure must be funded to introduce a biomass system into that school, but the community cannot apply to the SCHRI because the school is not a public project—it is, essentially, a private project under PPP. What kind of mechanism can they use to make it happen? If it does not, we are not going to see a demonstration project in Perthshire and that area will not tap into biomass in the future.

Hugh Raven: With respect, it seems to me that you have largely answered your question. I suspect that you knew what conclusion you wanted to hear when you asked it.

Mr Ruskell: Is the SCHRI an appropriate mechanism for capital funding such installations, or do we need an additional mechanism? Is it about the specifications within PPP contracts? What can unlock it?

Hugh Raven: In developing the renewable heat strategy that the minister has announced, the Executive needs to consider the technical constraints that have applied in such cases. Because the SCHRI is not applicable, it is obviously not the right mechanism to address that issue. I hope that the review will reconsider the availability of grant support with a view to breaking down that technical barrier to public facilities such as schools and community halls—if they are funded in that way—getting access to the technology.

Mr Ruskell: So, you think that it is an issue of providing a capital grant that is specifically designed for that rather than focusing on the PPP process.

Hugh Raven: Yes. In the first instance, I think that it is.

Mr Ruskell: Can I get another view on that?

Jeremy Sainsbury: It is a mixture of both. The specification of PPP projects is quite important. Projects tend to be specified two or three years before they are built, because of the tendering, planning and construction processes. For the projects that are being considered today, biomass is being looked at much more positively, as contractors see the technology evolving. Three years ago, when the school that you mention was being talked about, they would probably have thought that it would be barking to install a biomass heating system, which would need a secure supply.

That takes me back to something that I missed out in what I said before. Although there are very skilled plumbers and fitters out there, not many have experience in biomass systems. Training must be provided. I made the point about maintenance, but I did not make it clearly enough. Getting trained plumbers and fitters who can do the job and who are in "Yellow Pages" is another smallish hurdle to get over.

If people are given a little confidence, once they are forced to use biomass they will find that security of supply is not an issue—there are several sources from which they can get it. Unfortunately, it is all imported at the moment, but the infrastructure could be developed by encouraging new projects. For example, the 44MW E.ON UK plant in Lockerbie, which is going to burn woodchips, has received consent and is now moving forward to construction. The other day, I was in discussion with Scottish Enterprise Dumfries and Galloway. It got the public bodies around the table to discuss biomass and pelletised systems on the back of that plant.

That shows that people are looking and that, where infrastructure comes, people react. The enthusiasm that was shown was fantastic. The critical consideration was that it would cost only £22,000 to construct a biomass plant that would produce 18 tonnes per hour, as the rest of the infrastructure has already been paid for by the E.ON plant. A cost of £22,000 does not require people to make a big leap of faith to support and get involved in producing a product that can be used locally at 18 tonnes an hour. If that plant was being put in in isolation and everything that power stations pay for was needed first, it would cost closer to £500,000 to produce 18 tonnes an hour. There is a huge difference there. They are now asking whether enough biomass can be supplied to make that happen, which would provide the resource that is needed.

That is an example of the beginning of a market. All the elements are in place; it is a question of structuring it and considering where to seed the market with financing to get over the infrastructure hump, which I talked about earlier, and deliver a product to the market. That will then release other potential and it will cascade from there—it is the good old Keynesian multiplier theory.

Fergus Tickell: It is telling that the PPP contract for the Aberfeldy school requires two systems: gas and biomass. That reflects a lack of knowledge of the efficiency and capability of biomass. The contractor is mitigating risk because it is unfamiliar with the technology.

The impact of the energy market has not yet been mentioned in the debate. In off-gas locations, where oil and liquefied petroleum gas are the only alternatives for energy delivery, biomass from locally sourced wood is becoming increasingly competitive.

Maureen Macmillan (Highlands and Islands) (Lab): Up to now, we have talked about public procurement but, in rural areas, there is great potential for using biomass in the domestic market. Obviously, for the domestic market, a secure supply is needed. Also, it seems that boilers that use woodchips or pellets are much more expensive than gas-fired or oil-fired boilers. Why is that? Is it just a matter of supply and demand, or is it intrinsically much more expensive to install a wood-fired boiler?

Nora Radcliffe (Gordon) (LD): Perhaps we should ask a plumber.

Hugh Raven: We need a plumber, yes. I will try to answer that question. I think that it is a combination of three things. The capital cost is higher because there is more infrastructure involved in a wood-fuel system than in a gas or oil

system. It requires a substantial hopper—the equivalent of a tank—with additional space and an auger, which involves a much more complex process than drawing down oil or gas. Because the firebox is larger, the physical installation is also more expensive. There is a combination of infrastructure costs.

Secondly, there is a lack of experience among installers in the UK and a relative lack of competition in that market, which pushes the price up. The third aspect is that the scale of the market in the UK is not sufficiently large to benefit from economies of scale in importing the machines, which are all manufactured overseas.

I am not an expert, but the combination of those three factors contributes to the significant cost differential. The work that we did indicated that the cost differential was between five and six times, which shows clearly the need for capital assistance from the Executive and the Treasury.

11:30

Maureen Macmillan: I wondered whether it was a question of supply and demand. In rural areas I would like to see the Executive's central heating programme for pensioners rely on wood-fired boilers, rather than oil, on which it relies at present. Obviously that would be much more of an investment for the Executive, but it would be a better investment for the pensioners, because their long-term fuel bills could be much lower.

Your document "Wood fuel for warmth" mentions the idea of a wood-fuel refinery. We have had evidence to the effect that the industry should be a cottage industry rather than the kind of industry that comes to mind when we talk about refineries. If we were to go down the road of having refineries, how many do you envisage there being in Scotland? How would that operate? FREDS might have a view on that too.

Hugh Raven: I hope that FREDS will explain the work in which it is involved and the work in which my colleagues are involved commercially around Lockerbie, which is a good example of a cluster of activities taking place simultaneously.

The reference to refineries is perhaps misleading, because it is more about clusters of local expertise and security of supply being superimposed upon existing demand. As you rightly say, in many respects the process will be devolved. To make it work, the supply has to be local to the ultimate customer. That is necessary to make it work from a carbon-balance perspective and a financial perspective, because the cost of transporting around bulk fuels is significant.

The use of the term "refinery" might be helpful, because it indicates that large lumps of investment are required, as Jeremy Sainsbury illustrated, to get over the lack of infrastructure. However, the term is perhaps inappropriate in that it suggests that the work will be highly concentrated. There is a need for clusters, but they have to be relatively devolved and locally rooted clusters—if you will forgive that rather complex and tortuous phrase.

Fergus Tickell: I thought that the use of the word "refinery" was a little unfortunate, given its oil connotations, but the principle is sound. Within the FREDS group we did not identify the concept of wood refineries per se, but we recognised that scale had to be introduced into the biomass sector to allow a wood supply infrastructure to develop around it. That could be in the form of clusters of heat users, which Hugh Raven mentioned.

We identified the opportunity to develop electricity-only plants, scaled to match the local wood resource, in the 1MW to 5MW range, using 25,000 to 60,000 tonnes of material a year, which in turn, with the infrastructure established around it, would energise the local heat market.

It is difficult to put together an infrastructure based on an irregular development of a local heat market. There is big investment in the wood refineries. Significant investment is required in woodchip capability, developing a site and developing infrastructure around it to deliver to smaller markets. We identified that there was a real opportunity to use the strength of the current electricity market and the availability of local wood fuel to create that infrastructure, which would energise the heat market. It is extremely straightforward for a heat market to draw on a supply that delivers 60,000 tonnes to an electricity or combined heat and power project and hive off 100 tonnes of the material for a village hall or social housing district heating system, for example.

We have mentioned failures in the biomass market, which has developed piecemeal. It is my judgment that many of those failures have happened because the infrastructure was not sufficiently strong and robust. Wood has had to be moved around in small quantities over big distances. The key to refining the biomass is to link it with electricity or combined heat and power projects of scale and thereby to feed into the rapid development of a local heat market.

Jeremy Sainsbury: The vision that drove part of the FREDS work on biomass was to understand the resource, how it is used by the market and its growth. The timber resource in Scotland is scheduled to nearly double the mass that is available to the marketplace, so the financial opportunity for Scotland in biomass is massive, although there obviously has to be a market for that extra mass for it to be released. The initial

investment will be in existing timber. Scotland has a huge resource of that, as we mentioned earlier.

Let us consider the production chain. Normally, when a tree is harvested in the forest, 30 per cent of the tree stays on the ground where it falls. If the tree is any distance from a mill, small round wood that does not have enough value to be transported stays in the forest, so there is a huge local resource to supply a local use of such timber. If there is a financially viable local route out of the forest for that timber, that will release more mill timber to travel, which will create more jobs in Scotland to mill the timber. However, only 50 per cent of the log is consumed by mill timber; the other 50 per cent is chip and sawdust. If we stick a larger biomass plant—such as the one at Lockerbie—into the cluster, it also provides the infrastructure to produce the chips.

Just by looking at the way in which timber travels, we find a way of taking off the lowest-value stuff, releasing a market for it, bringing it out of the forest and using it to the benefit of the local people. A useful product is created from what used to be called waste. We had a huge problem with the definition of that sawdust and chip product as waste. It is not waste at all. Of course, we do not use that word in the forestry sector now, so I did not say it—perhaps we should strike it from the record. We talk about the use of co-products.

The Convener: It is not waste; it is a co-product.

Jeremy Sainsbury: Yes. Waste does not come into it.

Those points were all considered as part of the FREDS vision. There is a place for clustering, local use, the most efficient use of transport and releasing economic activity from our forests as they grow and expand. That is the structure that we proposed in the FREDS report to release all the economic activity throughout the chain.

Mr Ted Brocklebank (Mid Scotland and Fife) (Con): I am totally convinced on biomass and am enthusiastic about it. However, without wanting to sound as though I am carping, I must say that I get slightly concerned when I hear people saying, as Fergus Tickell did, that we are ahead of the game on biomass technology when all that we have heard previously is how far behind the game we appear to be in many ways.

More than 20 years ago, I saw biomass technology working in Sweden and Finland. Those countries were very much ahead of the game and their technology worked incredibly effectively. At the same time, wearing a different hat, I saw wind power technology in Jutland and California. They too were ahead of the game. In recent times, we in Scotland have been trying to tell people that we were ahead of the game in wind technology, which was blatantly untrue. We were not ahead of the game and our efforts to get into any of the subsidiary industries, such as manufacturing blades for wind turbines, have been unsuccessful because we are so far behind.

Much as I would be glad for FREDS to get into biomass technology, is it not the case that much of the development work has been done overseas? Boilers and techniques for harvesting biomass have been all been developed overseas, so is it not the case that we need to catch up and that we need massive investment to develop biomass effectively for Scotland?

Fergus Tickell: I do not think that I said that we are ahead of the game with biomass installation. I said that we are ahead of England in that we have a resource available to us for use in the biomass—

Mr Brocklebank: We have got trees.

Fergus Tickell: We have a lot of woodland and a lot of productive timber and there is far more that is potentially accessible. I am as aware as anyone of the complete lack of penetration of biomass into Scotland. You are right about Scandinavia—I, too, have been there and seen the way in which wood is used to deliver energy. We have a huge amount of catching up to do, but my point is that Scotland is better placed than the rest of the UK to make up the gap.

We need investment, but we need to proceed in a way that integrates the availability of the resource with the delivery of the product, whether it is electricity or heat. That is what we all want to achieve and we need to identify the barriers to that. FREDS has identified a range of barriers to biomass development, including capital costs, competing markets and the risks that are perceived by some parts of the forestry sector. In Scotland we have an enormous opportunity to use our existing resource, in relation to which we are ahead of the game. We do not need to plant short-rotation coppice to deliver material to our biomass sector. It is already growing here and it is becoming more available.

We need to invest in the right types of plant in the right places to take advantage of the resource and we need Government support in terms of capital grant and policy frameworks for planning and other regulatory aspects. That will allow the opportunity to be delivered rather than bypassed in the way that, as you rightly say, some other renewable technologies were bypassed 20 years ago.

Mr Brocklebank: Do the other witnesses want to comment? If not, I have another, more specific question.

Jeremy Sainsbury: You are right to say that the established biomass technology providers will almost certainly come from the continent, although

there are some boiler-makers in the UK and they should be encouraged to take part. However, that does not detract from the huge economic development activity and the jobs that are involved in the biomass sector and the installation sector in the UK. Six jobs are created per megawatt. The kit itself is an issue, but it is not as big an issue as it is in the case of wind power.

Unfortunately, wind power suffered because the manufacturers were never convinced of the momentum in the early days so they were reluctant to place plant here. The world market has now taken off and people are considering placing plant here, but it is difficult to encourage them to do so because of the straight way in which we interpret the rules in the UK. In Canada, Spain and other places where we have studied biomass and wind power, people are told about the potential of local manufacture, but it is more difficult for us to encourage people. What wind has achieved for biomass is the finance sector's belief and willingness to invest in renewable technologies. We should not underestimate the benefits that wind has created for biomass.

By the way, about 80 per cent of wind turbines are not made by wind turbine manufacturers, who are mostly assemblers and designers. We need to consider the potential to use the UK's engineering expertise in the production of gearboxes, transformers and towers—I know that we have done our bit with towers in Scotland—to produce the bits that go into the turbines. It is too late for us to get the design stuff, but we can get the manufacturing. One reason why Vestas invested in Scotland was that 85 per cent of the V66 wind turbine could be built here. That is an area in which we could have better focus.

11:45

Mr Brocklebank: Does anyone have particular knowledge of the project at the Tullis Russell paper mill at Markinch? There is a reference to it in the research paper and I know a little about it. I understand that the project is considering the business of a tree-growing area that will provide fuel for energy production.

Fergus Tickell: The Tullis Russell project is predicated on the development of short-rotation willow coppicing in the vicinity of the plant. That is unusual for plants in Scotland, which are generally considered in relation to the existing forestry resource.

Hugh Raven: From the Sustainable Development Commission Scotland point of view, the case for short-rotation coppicing, particularly in Scotland where so much fuel is already available, has not been made on sustainable development grounds.

Rob Gibson: Ted Brocklebank's remarks on the failure to develop the sector remind us that we do not need any more Tory Governments and their unco-ordinated policies towards renewable energy sources.

Mr Brocklebank: It started with Labour.

Rob Gibson: I meant Tory Governments by any name. Anyway, finance needs to be in place for the sector to develop.

The committee has heard the Highland Council's view on the matter, which was important. We heard of examples from Lockerbie and Lochaber. The council said that more needs to be done in supporting more enhanced locally based processing of forest products, particularly biofuels. That includes the production of woodchips and pellets, the provision of adequate drying facilities and the development of delivery networks.

Should there be a strategy that specifies specific locations for where clusters should be built? That would be better than waiting for the happenstance that several people have a good idea and the sector develops from that.

Fergus Tickell: In short, yes. That was picked up in the FREDS report. Admittedly, we were considering electricity only, but we believe that the development of electricity plants will create wood refineries that will support local heat production. The most efficient location for those plants is very close to wood resources. There is no point in sending high volumes of low-value material over long distances on the backs of lorries to turn it into energy. That would diminish the energy value and environmental status of the project.

For example, moving material from a forest in Argyll, or from parts of the Highland Council area, to a centralised chipboard plant will soak up 45 to 50 per cent of the timber's value. The forest grower will bear significant losses on the material, cross-subsidised from the saw-log element of the forest crop. From an economical and environmental perspective, it is self-evident that the development of electricity-only, CHP or heat cluster projects should be located as close as possible to the forest resource.

Jeremy Sainsbury: Can my response to the question be, "Yes and no"?

I agree with Fergus Tickell that the Executive must produce firm planning policy guidance that encourages planning authorities to consider timber resources in their areas, assess any project against those resources and maximise the opportunity of any project. For example, a biomass plant should not be put on a constricted site where other buildings cannot be placed next to it. A high energy user could be established next door to a

biomass plant to maximise use of the steam and heat that it produces.

National planning policy guidance is being reviewed and it is important for the Executive to consider ways to say at strategic level that biomass should be preferred and that biomass plants should be encouraged to set up with proper infrastructure. Business will follow those leads. I accept that giving a lead is an element, which would devolve to structure plans. People are keen locally to administer advice from national planning policy guidance on biomass, so such a move would strike a note with many planning committees throughout the country.

The planning policy guidance might be accompanied by a map of where resource is located, but we should not be prescriptive about exactly where the focus should be placed, because when Governments do that, they normally get it wrong. The market is the best arbiter of where to position plant most economically.

The answer to your question is yes—guidance and a strong presumption in favour of encouraging the use of resource locally should be given, and activity should be stimulated. It is also no—the Government should not say, "That's the site," because that is always hijacked, somebody else always runs off with something and the allocated site is the wrong one.

Rob Gibson: How do we bridge the gap? I saw a large pile of woodchips that are exported from Inverness to Finland. I have no doubt that that involves long-term contracts with fixed prices, which help that operation. However, a lot of our pellets and other materials are imported. How will we go from importing to having home-produced material? Some wood-fuel users suggest that importing will still be cheaper.

Fergus Tickell: We need to differentiate pellets and woodchips. I am no expert on pelletisation or the markets for pellets, but I refer to what was said about Balcas, which has established at its sawmill in Enniskillen a combined heat and power project and a pelletising plant. It has developed and expanded a market in Ireland because a local supply is available. It can respond to local market conditions and make a market for itself.

We in FREDS have identified that woodchips are used in some electricity-only projects and the district-heating-scale projects that are springing up in Argyll, parts of Lochaber and elsewhere. There is no prospect of economically importing woodchips for that process, but one need not import if demand matches the local resource.

The wood-fuel market tends not to use the more valuable part of the timber crop—the saw log and the pulp wood. What you saw in Inverness was pulp chips that were heading to Finland. The material that wood-fuel projects tend to use is even less valuable than that, so such projects enhance the economic take from commercial woodland. I do not think that imports will supplant the local supply of woodchips.

The Convener: I am keen to try to wind up the session.

Jeremy Sainsbury: Scotland has huge potential and a massive resource. If there is one message, it is that we rush to develop that resource at our peril. We have had too many false dawns. We must get the structure right. That goes all the way from planning to classification by the Scottish Environment Protection Agency and to the Office of Gas and Electricity Markets. All those regulatory elements must be set up correctly and we must create the planning framework in which activity can flourish, after which the industry will provide the market. There is a drive. Strategically placed grants to make pioneering projects move forward will accelerate market deployment, but history cautions us about rushing at something with enthusiasm. That is infrastructure stuff.

The FREDS report is now one year old. It set targets for early infrastructure, several of which have been achieved. It also talked about setting planning policy in the right direction and other matters. That is a five-year process, of which the FREDS report reckons that four years are still to go. The support that you are giving it is absolutely fantastic. The industry's duty is to co-ordinate our message to you so that you get a clear idea of how to build that infrastructure for the future. We thank you for your support today and hopefully, through working together, we can lead the field in the Great Britain market because we can grab the bull by the horns. We are way ahead of the thinking in England and Wales and we must keep it like that; in that way, we will punch above our weight.

The Convener: Nora Radcliffe is desperate to come in.

Nora Radcliffe: I have a sort of sideline question, if you like. Willow can be used in short-rotation willow coppicing, but it can also be used as a biofilter for waste water treatment. Could those functions be combined? Is there a niche market for such a synergy—if there is a synergy—in areas where development is constrained? Could we interest private developers of smaller scale housing developments in using short-rotation willow coppicing for heat plants as well as for dealing with waste water? Is that feasible?

Jeremy Sainsbury: The waste water function is relatively small scale and to harvest from such plants would be prohibitively expensive. We in Scotland are not convinced about short-rotation willow coppicing.

Nora Radcliffe: Not on its own, but I wondered whether the synergy—

Jeremy Sainsbury: Scottish Water has talked with the Forestry Commission about willow and planting forestry as a way of getting rid of centrifuged sewage by spreading the nutrients on a site to produce biomass. That idea does not consider willow as a crop. It might have some merit, but we have to consider the zinc build-ups and all the other issues that would go with that. The soil in the area would have to be properly drained, for example.

There is an element in such ideas of creating an opportunity to use a waste product that currently goes to landfill and gives us a problem. I am not sure that any of the ideas have moved forward significantly, which suggests to me that there are land drainage problems and one or two other issues. There is certainly a problem with the public's perception of sewage spreading, because it has been done badly in the past on agricultural land and created huge difficulties, of which the Scottish Executive will be aware.

Hugh Raven: One of my fellow commissioners has experience of the point that Jeremy Sainsbury has just made about using SRC as a way of processing sewage waste. That has been successful in Northern Ireland, and if it would be helpful to the committee in this or a future inquiry to hear from the commissioner on that, I am sure that he would be delighted to come and speak on the subject.

Nora Radcliffe: It would be useful to have that feedback, thank you.

The Convener: If we are to tick the box on energy production, we have to talk about transport—a point that was made earlier. We can achieve a CO_2 gain through the production method, but if the wood has to be transported too far, that CO_2 gain can be lost. We are trying to think in the round about opportunities to hit more than one target at a time to get sustainable development.

It has been interesting to interrogate the first panel of witnesses. I am conscious that we have another set of witnesses waiting patiently at the back of the room, so I thank our three witnesses for giving us written evidence and answering all our questions. The session has been very useful.

11:58

Meeting suspended.

12:00

On resuming—

The Convener: I welcome our second panel of witnesses, who are Chris Inglis, the executive director of the Forestry and Timber Association; Steve Luker, the director of Steve Luker Associates Ltd and consultant to the Scottish forest industries cluster; and Stuart Goodall, the head of policy with the Confederation of Forest Industries (UK) Ltd. As with the first panel, we will not take opening statements. I thank the witnesses for their written submissions, which have been circulated to members and which we have read.

Nora Radcliffe: Does the 30 per cent of brash that is left behind after felling make the soil more productive? Does removing it have any long-term effects on the future productivity of the soil?

Chris Inglis (Forestry and Timber Association): There is no simple answer to that question, because it depends on the site, the soil type and the site's general fertility. However, not all of the brash should be removed from every site, because doing so would have a detrimental effect. It is useful to recycle a certain amount of the nutrients in it. We are talking about horses for courses, but, in general, a significant amount of the brash can be used. Some of it is already used on sites with poor soil stability. For example, on peaty sites where tractors and other equipment that are used to harvest timber would sink into the soil, it is laid down as a mat for travelling on. It is useful to lift it after harvesting, because otherwise it is an impediment to the growth of the next crop.

Richard Lochhead: It is ironic that Scotland has only a fledgling biomass sector, given that we are a generally underpopulated rural country. I guess that that sums up Scottish history. Everyone is now looking to the future. The biomass industry says that there is huge potential because of Scotland's unique profile. Architects and construction companies say that there is huge potential for timber-framed or sustainable buildings that use our timber resource. People are talking about building a pulp mill in the north of Scotland, again because Scotland has a unique profile with lots of timber and wood products. The witnesses will guess what I am driving at. We have many demands on Scotland's forestry. What should our strategy be and what demands can we make on our forestry resource? Are all the demands realistic, given that we are fairly far behind with forestation in Scotland? What are your general comments on where we are going?

Chris Inglis: The industry is looking for balanced markets; we are not looking for new markets that will displace existing ones, because that would not be hugely helpful. Some of the projects that are being considered, such as the

pulp mill that the member mentioned, are of significant size. The risk of significant projects is that they may have negative impacts on existing markets.

One of the benefits and attractions of the wood energy market is that, because it involves small to medium-sized consumers, it does not make a very big impact. Instead of the market having to scrabble around to satisfy any very large project that might be developed, any impact will be incremental and will grow according to the supply of materials. As a result, the biomass market is particularly attractive, because it gets balance into the market, instead of distorting it.

Richard Lochhead: I am still seeking an answer to my question whether there is enough wood in Scotland to serve the various industries.

Steve Luker (Scottish Forest Industries Cluster): If we employ the European model, our approach will be based on heating. In Europe, 90 per cent of the technology delivers heat and hot water to buildings. Encouraging large-scale electricity generation could lead to demand shock because such projects require 500,000 or 1 million tonnes of wood at one go at one site. However, the heat market—which would include schools, hospitals, hotels, public buildings and housing estates—will require only small volumes of wood and, hopefully, will develop in clusters as that is how the supply chain will emerge. That is a sensible way forward, because it echoes what has happened in Europe and addresses Chris Inglis's concerns that the supply industry will face problems if it has to react to the simultaneous development of several large projects by being required to supply millions of tonnes of material.

Stuart Goodall (Confederation of Forest Industries (UK) Ltd): Potential demand is greater than likely resource availability. I understand from the Forestry Commission that the potential demand of the biomass market alone is greater than the overall availability of material over the next 10 to 15 years. As Mr Lochhead pointed out, other markets for this material, such as the construction market, might prove just as attractive with regard to sustainable development, climate change and so on. As a result, we must reach a better understanding of issues such as availability and emerging markets and then develop matters strategically so that the appropriate materials go to the biomass market, the construction market and so on. Of course, the market should be able to help sort that out, because the various materials are likely to have different prices.

I should point out that elements of the existing industry are using materials that could compete in the biomass market, such as sustainable wood products that lock up carbon and that, at the end of their usable life, can be recycled, reused or even incinerated. We should not try to stimulate the biomass market in a way that would displace such activity. Instead, we need to focus on areas where there is real potential to create new markets and to use the material that will become available. As Steve Luker and Chris Inglis have pointed out, that is more likely to happen if there is a mixed biomass market and if, instead of developing large-scale electricity generation or coal-firing projects, we develop small to medium-scale projects and aim at the heat market.

The Convener: We are quite attracted to that approach. Indeed, one of the drivers of this inquiry is the opportunity for the biomass industry to provide local employment and to support rural communities. However, our previous witnesses pointed out that any CO_2 gains might be lost if wood is transported too far, as more CO_2 will be used. How do we get the right clusters in the right place? Do you share the view of our previous panel, who thought that the answer lay in strategic planning guidance, with local councils deciding where the clusters should be located, and who felt that any such strategy should not be put in place immediately, but should be phased in over five years or so? Do you feel that the industry should come up with the right places for such developments?

Stuart Goodall: Although local authorities and the local planning process can play an important role, that must all be linked to an understanding of fuel supply availability and the local market. We in the industry very much support the biomass market and want it to develop. We are happy to work with local authorities, the Scottish Executive, the Forestry Commission or whomever to understand better the availability of that fuel supply and to use any measures that we can to ensure that it is made available. However, the issue is linking supply availability and potential markets, and considering the matter in the long term. We do not want to rush into getting facilities on the ground; rather, we must consider what will happen in the next five, 10, 15, 20, 25 years and beyond.

Steve Luker: Large single buildings, such as hospitals, schools and swimming pools, and industrial users of heat are the key markets. They are mostly under the control of the Executive and its agencies, so a simple way to achieve more penetration of biomass heating is to set targets for organisations that control public buildings. We have already identified what that would mean for jobs: if biomass met 5 per cent of Scotland's heating needs, there would be 2,000 direct new jobs.

The Convener: That takes us back to the point about procurement that was made earlier. Setting targets in the public sector and ensuring that the

procurement methodology exists to deliver those targets are issues.

Steve Luker: Yes. There are a couple of points to make about that. Supply and demand have been discussed. If the customer demands wood heating, plenty of organisations and businesses will supply wood fuel. The business is not complicated or difficult to get into. Customers are the key. If a local authority says that it wants to convert 10 schools, a supply chain will quickly emerge. That has happened everywhere else.

What was your question again? I am sorry—I have forgotten it.

The Convener: I mentioned procurement. You are saying that targets that are set in the public sector could be key in driving the market. I said that procurement has already been identified as a block in that respect.

Steve Luker: I have spoken to a number of PPP contractors about why they do not install wood heating systems. The key factor for them is risk. If they have to manage or maintain a building for 25 years, there will be a big financial penalty if that building is not heated. The contractors said that wood heating systems are a better and cheaper way of heating their buildings, but they would not risk installing them because, if a building was not available for its intended use, the penalty would be a lot of money per month. We must overcome that problem. It would be overcome if the local authority or client simply said that they wanted wood heating as part of their solution.

Incidentally, wood heating schemes typically have fossil fuel back-up systems. Small oil or gas boilers back up the wood boilers—that is how systems work everywhere else. There is nothing wrong with such arrangements—they are sensible. There is a more secure heat supply with such arrangements.

Mr Brocklebank: I want to return to the overall wood supply and your argument that we must not interfere with possibly more profitable markets for wood. The Finns and the Swedes looked at that matter 20 to 30 years ago. My recollection of what happens is that branches, leaves, bark and so on go to the biomass industry and good trees are used for joinery and carpentry.

I think that the previous panel argued that rotation coppicing has not proved itself. I asked about that with reference to the Tullis Russell project at Markinch. Do you share that panel's view that rotation coppicing might not yet be financially viable in Scotland? If you do not, why not?

12:15

Stuart Goodall: I would not say that short-rotation coppicing has no role; rather, it has a potential role, but we are at an early stage in using it. We do not have much experience of it. I have heard mixed views from people about their experience of SRC. I do not dismiss it, but it would be a mistake to focus on SRC alone providing a future reservoir of woody biomass. For several reasons, SRC is appropriate only in certain areas of the country—it cannot be used everywhere. It has certain properties that are not necessarily appropriate for every use.

It is important to consider the future reservoir. We have talked about availability. We have a real opportunity in Scotland to increase availability—whether for biomass, for construction or for other uses—by establishing new woodland or forest. Research has shown that once new woodland or forest has been established—which does not take long in Scotland because of the good growing conditions—the amount of fuel provided is similar to that provided by short-rotation coppice. At the same time, that establishes something that has far greater benefits in terms of biodiversity, jobs, recreational opportunities and market flexibility. Energy is not the only market: woodland and forests offer the flexibility to exploit other markets too. We should consider creating reservoirs. Short-rotation coppice will be part of that, but we should not miss the opportunity of forestry.

Mr Brocklebank: Are you saying that the mix of new trees might be different from the current mix? Perhaps we should consider other species to take advantage of the biomass market or—if the energy situation changes—other markets.

Stuart Goodall: The wonderful thing about forestry is the variety of species that are available. In any area, you can decide which species are appropriate for particular markets and outcomes. There is almost infinite flexibility, and real potential to do more, which would be welcomed as part of a strategic approach.

Maureen Macmillan: I would like some clarification on short-rotation forestry. What species would you use for that?

Stuart Goodall: In short-rotation forestry as opposed to short-rotation coppice?

Maureen Macmillan: Yes.

Stuart Goodall: Short-rotation forestry is one opportunity, for which a variety of species is available—alder, for example. Short-rotation forestry is like an interim stage between short-rotation coppice and conventional high forest. We are not bringing conventional high forest into the mix at the moment. However, Chris Inglis is the expert on timber and on the planting of different species of trees.

Chris Inglis: Short-rotation forestry is predicated on fairly quick growing species, which

are mainly, but not exclusively, broad-leaved. In Scotland, the obvious species is birch, which grows everywhere. Around 20 or 30 years ago, a huge amount of energy and money was put into research at the University of Aberdeen on how we could improve birch to make it more commercial. It is a commercial species in Finland and the Baltic states, for example, where it is used to make paper pulp and plywood.

At the time, nobody was keen to plant birch here, because there was no market, but with a developing wood-fuel market, that might no longer be a problem. Vast areas of what foresters call "scrub birch" could, if there were a market for the product, be brought under management. Bringing undermanaged woodlands under better management would bring benefits.

Short-rotation coppice is more a land-use issue than an energy issue. What is the best use of the nation's limited but valuable land resource? If the best use is the production of biomass, that is fine, but I remain to be convinced that willow is the best option. A few weeks ago I asked a power generator in England where willow coppice would come in the league table of preferred fuel. The answer was, "Right at the bottom." First, it tends to have high moisture content. Secondly, because of its small diameter, the ratio of wood to bark is very low. The wood fibre has most of the calorific value—it is not true to say that bark has no value whatever, but it has a lower value than wood fibre. Willow is also stringy and difficult to chip. There is a raft of disadvantages to using willow, but co-fired power stations use it because there is an incentive to do so.

The Convener: At least we now know what we are talking about. We are not experts on wood.

Mr Ruskell: On how we use land, I am interested in how biomass links with other policy areas. There are conservation initiatives, such as the huge native forest regeneration in the Loch Lomond and the Trossachs national park, which I presume uses birch. How compatible is biomass production, which I assume involves intensive monocropping, with the use and management of the forest resource for purposes such as conservation, tourism and leisure?

Nora Radcliffe mentioned sludge, which is another big sustainable development problem. What do we do with sludge? Is sludge cake an acceptable fertiliser in biomass forestry? Can sludge be co-fired with biomass?

Chris Inglis: On your first point, energy plantations—in this context I am thinking of short-rotation forestry rather than coppice—can deliver many other benefits: to wildlife, landscape and recreation, for example. The fact that a crop is planted for a specific purpose does not mean that it must all be harvested for that market. It is possible to plant birch and other mixed hardwoods that are appropriate to a location on a site that is managed as a multipurpose forest. Any forestry crop must be managed if it is to achieve the management objective. If the objective is a combination of timber and fuel production, wildlife benefits and recreational facilities, that is fine. People do not want to walk through dense monocultures, but there is no reason why a crop that is initially established as a monoculture cannot be developed for multipurpose use. Such development is taking place in our forests. A bit of careful planning should ensure that there will be no need for the restructuring that is required for many woods that were planted in the 1960s and 1970s.

I am not an expert on the use of sewage sludge as a fuel or a soil improver, but I know that there are problems with using it as a biomass fuel, given the outcome of the judicial review in relation to its use at Longannet power station. Sludge is treated very much as waste and comes under the waste incineration directives, which add a raft of regulatory problems. There are plenty of examples of the use of sewage sludge as a soil improver. It is used quite extensively in Northern Ireland, for example. However, there tends to be a pretty strong social response to sewage sludge being spread on land behind people's back fences, so the wide application of sewage sludge creates difficulties.

Mr Ruskell: Do the other witnesses have views on the compatibility of biomass fuel production with other land uses or on the use of sludge? The committee must deal with such difficult issues during the coming months.

Stuart Goodall: I cannot add to Chris Inglis's comments on sludge.

The Convener: We must find a sludge expert.

Stuart Goodall: Extracting timber is not incompatible with a variety of management objectives. Conservation of a habitat, biodiversity and so on can still go hand in hand with timber extraction. The key is how to achieve a balance and what kind of timber extraction is used.

I would not look at a woodland that is important for conservation and access and say that it was a prime resource for biomass material, although one could still take timber out of it, so it would be a contributory activity. It is a case of balancing management objectives, as Chris Inglis said.

Whether through Government or forestry policy, we want to deliver a number of management objectives throughout Scotland, so let us look at delivering the most appropriate management objectives in the most appropriate places. Timber extraction can play a part in virtually all those

management objectives. It is a compatible activity, but we are not looking to establish conservation areas as an intensive biomass resource.

Mr Ruskell: I presume that multiple use has a cost implication if one is trying to extract timber from an area where there are mountain bike tracks and everything else. Effectively, you are saying that you would not target the multipurpose forest areas, but that they would contribute to wider production.

Stuart Goodall: It comes down to supply, or what is available. We look at such areas and see the potential supply, but we do not say that there are X hectares of woodland there that can supply X hectares of biomass or construction-grade timber. We look at an area and ask what is likely to come out of it based on how we want to manage it. We want to get the balance right.

Chris Inglis: For significant commercial markets, the scale of activity has to be such that we derive economies of scale. For example, harvesting timber for a bulk commercial market—be it pulp, particle board or sawmilling—needs to be done on a certain scale. Therefore, the footprint of that harvesting operation on the landscape and environment tends to be a little heavier than might be the case if one were managing a woodland for multipurpose benefits, including wood fuel. The scale of demand for wood fuel is likely to be smaller and therefore will impose a less significant footprint on the multipurpose aspects of forest management.

Richard Lochhead: Do not worry about Mark Ruskell—he gets sewage sludge into every conversation; even over lunch sometimes, you will be glad to know.

My question goes back to availability. We are seven years into devolution. Do you think that the Government has failed miserably to take biomass into account in its forestry policy and that the target of 25 per cent cover in Scotland a few decades down the line seems ambitious given the lack of planting that is taking place?

Stuart Goodall: It is fair to say that there is disappointment in the industry that there has not been the scale of planting activity that we expected the Government strategy to deliver. That needs to be addressed and there is an opportunity in the current review of the Scottish forestry strategy to do that.

Linked to the outcome of the climate change inquiry is the opportunity for that to be embraced in the Scottish forestry strategy and for there to be delivery in this area. The opportunity to use timber as biomass has not been a key element of Government strategy in the forestry sector, but that is starting to change and we would like it to be encouraged. We have to look at the review and say, "This is the opportunity to rectify the situation."

Steve Luker: The supply forecasts that are being produced show that the supply of forestry will exceed demand each and every year by several million tonnes a year for the next 15 or 20 years. If one assumes that Scotland will become a bit more like everywhere else and that therefore 5 or 10 per cent of its heating market demand will be met by wood fuel, 2 million or 3 million tonnes maximum of wood per annum will be needed to go into that market.

The supply and demand scenarios show that there is a sufficient oversupply to meet a normal market situation in relation to energy needs. I have to add a caveat, as I am not sure what would happen if large numbers of electricity projects emerged at the same time, because they would use large amounts of biomass. Of course, they would probably not use only wood. There are no examples—apart from the Lockerbie plant—of wood-fired power stations.

12:30

Chris Inglis: A member of the previous panel said that, when a log goes into a sawmill, only 50 per cent of the volume of that log is converted into square-edged, sawn material. The other 50 per cent is in the form of woodchips, sawdust and bark. The growth in supply of wood from our forests is largely going to be in the form of saw logs. Therefore, a lot of the material that could be available for other purposes will be generated at sawmills. That goes back to an earlier question about where one might consider focusing the development of wood energy projects. Wood that has already been transported to a sawmill has already borne that cost. Therefore, if one can link wood energy development to existing sawmills, that could be advantageous.

All sawmills in Scotland have unutilised capacity. Apart from one, they all currently operate a single-shift system but have the capacity to work on two shifts. There is capacity to utilise more saw logs in Scotland. It is an interesting rule of thumb that, internationally, the profitability of a sawmill approximates to the market value of its secondary products. Without markets for the other 50 per cent of the log—the part that is not converted into square-edged, sawn material—there will be little commercial interest in better utilisation of sawmilling capacity. If we can generate markets for that additional material, which has already borne a transport cost, that could be extremely beneficial for the further development of our indigenous sawmilling industry.

Maureen Macmillan: I know that sawmills produce woodchips, but those chips are not

always the right size. I hear that sawmills would need to buy expensive woodchipping machines in order to supply the right size of chip. A one-man sawmill operator could not afford the machinery that he would need to convert his waste material into saleable material. How can such problems be addressed? Perhaps there could be a machinery ring, such as those that are set up by farmers, and one chipper could go around all the sawmills. How expensive would it be to convert to wood pelleting? A lot of sawmills in our part of the world are not big businesses—some of them are family businesses. What future do they have in this scenario?

Chris Inglis: One of the downsides of wood energy is that people talk about wood as a fuel, even though wood comes in all different forms. A tonne of wood can be one log, several logs, a trailer-load of chips or several bags of pellets. Different species of tree have different moisture contents, combustion characteristics and so on. It is not the same as when we are talking about heating oil or gas, or even coal, which tends to have more uniformity. Clear definitions of different types of wood fuel must be established. The European Committee for Standardization is developing something like 30 standards for biomass fuel, most of which are due to be published this year. That will be helpful, because there needs to be a common understanding between the supplier and the consumer when it comes to biomass fuel.

I am sorry—I have forgotten what the next point was.

Maureen Macmillan: How can the cost of machinery be borne by family businesses?

Chris Inglis: Supply chains will be difficult to develop without some grant assistance. It is a chicken-and-egg situation. In all probability, the market in a given area will not be big enough initially to keep a machine fully occupied. A cluster of 20 consumers in one area is not suddenly going to develop. The process will be incremental. A contractor will be reluctant to invest his own money in a piece of kit if he is not convinced that it will be fully utilised and give him a fairly rapid payback on his investment. Some assistance for developing the supply chain could be very helpful.

Steve Luker: Small sawmills will be well placed to supply wood fuel to local heat users. The key is local heat users' demand for wood fuel. I am not sure whether that is, in fact, a chicken-and-egg situation. If three or four buildings emerge in an area where there is a demand for wood fuel, and if a contract is issued for two years' worth of supply, that will be quite a valuable contract, following which someone could make an investment decision to purchase a chipper or to erect a drying shed to condition the wood fuel required to deliver on that contract. That exact model is already emerging in some clusters around Scotland.

If the focus is maintained on the customer pool for the woodchip to be used for energy, the supply chain will emerge to respond to that. If the customer pool is around mega projects, the order of magnitude will be different. If the projects that are undertaken are very small, that is also a problem. The ideal market would be based on 2,000 to 4,000 tonnes of wood fuel, which would supply three to four schools or a big hospital. If no market exists initially, that is the scale that people need to start at.

Nora Radcliffe: When Chris Inglis was talking about the secondary product at the sawmill end, it occurred to me that all the wood will have been transported to the sawmill, and I was wondering whether it all actually needed to be transported there. Might it be possible to rough-saw at the forest end so that, if there is a market at the forest end for the bits and pieces, only the part from which money can be made once it has been milled would need to be transported?

Chris Inglis: That approach has been tried in various parts of the world, but it has not been successful. That tends to be because of the quality of sawing: the first rough cut is fairly inefficient, whereas a modern sawmill does not saw the slabs or round edges off the log. The log goes in and the bark is peeled off. That is a product, which can be sold into the horticultural industry. The slabs off the side are taken off with chippers, which convert the wood immediately into chips, which can be used as a feedstock for pulp mills or, indeed, as a fuel. The wood left after that is then sawn up, and the sawdust is gathered, which is yet another product.

Nora Radcliffe: So there is quite an integrated operation at the sawmill, which cannot be separated out very easily.

Chris Inglis: Yes. The sawdust and the bark would be lost otherwise. Some slabs might remain, which would have to be processed again into chips. If everything can all be done on one site, that is the most efficient method. There is certainly an inefficiency in transporting across Scotland logs that are 50 per cent water, but that is a trade-off.

Nora Radcliffe: There is not a lot that you can do about that.

The Convener: We have exhausted all our questions this morning. I thank the witnesses for being prepared to answer our technical questions in particular. We have heard from a couple of really useful panels today. We have focused on stimulating key markets, and both panels have spoken about the role of the public sector and the importance of the forthcoming renewable heat

strategy. The suggestion has been made that we should have targets, and that local authorities should think of those targets as part of a way to generate local markets. We have heard from both panels about the issues of risk and security of supply, and about how they can be partly addressed through demand from the public sector. There is also the challenge of getting the right clusters in the right places and the requirement for a mix of market planning and local authority planning. That has given us some interesting ideas to discuss with future panels.

I was interested to note that there seemed to be a consensus that less priority should be attached to short-rotation coppicing, with much more enthusiasm for making the most of our existing forestry supply and achieving balanced management. That raises some interesting issues for future witnesses—particularly those from the Forestry Commission—to consider, to do with how they work with the industry. We were very keen to get the inquiry started today, and I thank the witnesses for their interesting evidence.

Subordinate Legislation

Potatoes Originating in Egypt (Scotland) Amendment Regulations 2006 (SSI 2006/27)

12:41

The Convener: Our final item is a negative instrument. Members have before them a copy of the regulations, together with a note of the Subordinate Legislation Committee's comments.

There are no questions or comments from members, so I seek the agreement of the committee to make no recommendation on the regulations.

Members *indicated agreement*.

The Convener: Thank you, colleagues. We have had quite a lengthy meeting. I close the meeting with the thought that we will continue our biomass inquiry next week.

Meeting closed at 12:41.

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