The Scottish Parliament
Pàrlamaid na h-Alba

Official Report

ECONOMY, ENERGY AND TOURISM COMMITTEE

Wednesday 13 June 2012

Session 4

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ECONOMY, ENERGY AND TOURISM COMMITTEE
20th Meeting 2012, Session 4

CONVENER

Murdo Fraser (Mid Scotland and Fife) (Con)

DEPUTY CONVENER

*John Wilson (Central Scotland) (SNP)

COMMITTEE MEMBERS

*Chic Brodie (South Scotland) (SNP)
*Rhoda Grant (Highlands and Islands) (Lab)
*Patrick Harvie (Glasgow) (Green)
*Angus MacDonald (Falkirk East) (SNP)
*Mike MacKenzie (Highlands and Islands) (SNP)
*Stuart McMillan (West Scotland) (SNP)
*John Park (Mid Scotland and Fife) (Lab)

*attended

THE FOLLOWING ALSO PARTICIPATED:

Charles Gallacher (Office of the Gas and Electricity Markets)
Ian Marlee (Office of the Gas and Electricity Markets)
David Odling (Oil & Gas UK)
Dr Charlotte Ramsay (Office of the Gas and Electricity Markets)
Alix Thom (Oil & Gas UK)

CLERK TO THE COMMITTEE

Tracey White

LOCATION

Committee Room 2

Scottish Parliament

Economy, Energy and Tourism Committee

Wednesday 13 June 2012

[The Deputy Convener *opened the meeting at 10:00*]

Decision on Taking Business in Private

The Deputy Convener (John Wilson): I welcome members to the Economy, Energy and Tourism Committee's 20th meeting in 2012. I remind all those present to turn off electronic devices, as they interfere with the broadcasting systems.

We have an apology from the convener, Murdo Fraser, who is unable to attend. We have no other apologies, as we have an otherwise full complement of MSPs.

Agenda item 1 is to agree whether to take in private item 3 and future consideration of draft reports on the energy inquiry. Are members content that we take those items in private?

Members *indicated agreement.*

Renewable Energy Targets Inquiry

10:01

The Deputy Convener: Item 2 is our inquiry into the Scottish Government's renewable energy targets. The committee will take evidence from Dr Charlotte Ramsay, Ian Marlee and Charles Gallacher from the Office of the Gas and Electricity Markets. Do the witnesses wish to make short opening statements?

Ian Marlee (Office of the Gas and Electricity Markets): Yes, we do—thank you. I am the senior partner who looks after the transmission team in Ofgem. The team sets the overall income that the monopoly network providers can earn and the outputs that they must deliver for that money. We approve the charging regimes that are proposed by the industry and, since the beginning of 2010, we have had the power to propose our own charging regime arrangements.

We welcome the opportunity to provide evidence to the committee, given that we are responsive to our stakeholders. The Scottish Parliament is a key stakeholder, and the committee is considering things that are very relevant to our duties.

To put that in context, our principal duty is to protect the interests of consumers, both current and future, which include their interests in the reduction of greenhouse gases and security of supply. The issues that the committee is considering today are therefore relevant to us.

Dr Charlotte Ramsay (Office of the Gas and Electricity Markets): Good morning. I am the head of European strategy in the European team at Ofgem. My team has primary oversight for the development and regulation of cross-border electricity infrastructure, so we deal with the regulation of and investment in new interconnection to Great Britain.

We deal with issues such as the north seas countries' offshore grid initiative, and we have a strong presence in Europe. I am directing one of Ofgem's new projects—the integrated transmission, planning and regulation project, which is a cross-divisional activity that involves the European team, the offshore team and the transmission team. It is looking at how our three regimes—the offshore, onshore and cross-border regimes—can interact and integrate to deliver the integrated transmission projects that we would expect to be a feature of the future energy system, which will have a high penetration of renewables. That project is pertinent to the committee and its investigations.

I will comment briefly on Ofgem's role in Europe. The European team has a strong voice in Europe, not only because a big Ofgem team is working on the issues but because our chairman, Lord Mogg, has a high-profile role in many of the institutions and committees in Europe.

We work hard with other regulators, the European Commission and European transmission system operators to influence European legislation, renewables targets and strategy. We want to ensure that the GB presence is adequately reflected and that we maintain a GB presence where it is important—for example, by ensuring that our renewables resource is adequately reflected in the outcome of European legislation.

Charles Gallacher (Office of the Gas and Electricity Markets): Good morning. Thank you for inviting us to give evidence today. I think that I have met everyone who is here a number of times before, so I will not bore you at length.

I am the director of GB external relations at Ofgem and I am also responsible for Ofgem's office in Glasgow, for which I will give a short plug. I think that I told you when I was last here that we were going to increase the size of the office in Glasgow. I can confirm that we have appointed 25 new permanent posts in Glasgow and gone from 12 to 40 posts. We plan to double that again, so significant increases are coming. That is because we take great account of what is happening here in Scotland on the energy agenda, as we have proved through our interactions with the Scottish Parliament.

The Deputy Convener: Thank you for your opening statements. Rhoda Grant has the first question.

Rhoda Grant (Highlands and Islands) (Lab): I want to ask about project transmit and its impact. Ofgem looks at the part of the bill that subsidises renewables, grid access and the like. What part of the consumer's bill relates to access to the grid, in comparison with other sectors that consumers pay for?

Ian Marlee: About 4 per cent of the domestic consumer bill relates to the transmission network and about 20 per cent relates to the distribution network.

Rhoda Grant: In project transmit, indicative tariffs were given for intermittent generators, which a lot of people welcomed. How close to reality are those indicative tariffs? Is that what they will be, or could they change dramatically between now and some future time?

Ian Marlee: The modelling for project transmit was based on some broad assumptions, which were agreed with the industry and which we think were reasonable to use. We do not yet know the full details of the costings of individual projects, for example, or what the final outcome of the process will be, given that we have now passed that through to the connection and use of system code panel—an industry panel—so that it can consider the approaches that we have taken.

We have given the panel strong instructions about developing the improved investment cost-related pricing model that was in our final conclusions, but we must wait to see what the outcome of that will be. We must also look at what the individual costs of projects might be before we can look at what the tariffs are.

We think that the assumptions that were agreed with the industry are reasonable and we are therefore confident that the best estimate that anyone can have at this stage has been made of what the ultimate tariffs will look like. However, they are not final tariffs and they will come out through the process as it continues.

Rhoda Grant: Okay. If I was a developer, I would need to know that information before I could even look at my project and see whether it stacked up. How soon will it be available to people?

Ian Marlee: We would usually expect the CUSC panel to take about six months, and we would then need to consider its proposals. We would expect to have an answer within a year. We are asking the CUSC panel to expedite its process as far as possible, but that rests with the industry rather than with Ofgem.

Rhoda Grant: As I said, project transmit has been widely welcomed, but one thing that has not been welcomed—and which certainly concerns me, as I cover much of the Scottish islands—is the tariff for island connection. Are you carrying out any work right now to try to find a fairer system for the islands?

Islands will be the source of most of our wave and tidal energy, so in the interests of consumers we do not want to stall development there, because such power gives us base-load, which is quite difficult to get with renewables other than hydro. It is a crucial point—not so much United Kingdom-wide, but certainly in the Highlands and Islands—that we need to get our island communities connected at a reasonable cost. Is that likely to happen? Where are you with that?

Ian Marlee: We have given the industry specific directions to develop the islands solution in relation to charging. We do not believe that the proposals that we have made are unfair; it is correct that cost reflectivity is still built into the system.

We looked at a form of socialised charging across the piece, but that would add significantly

to consumers' bills and would do so disproportionately in areas with high fuel-poverty levels, such as the north of Scotland. We therefore did not think that that was the correct approach. An improved cost-reflective system is the right way to go, as that recognises the specific nature of renewable energy, in that it uses the transmission system less and less reinforcement is needed for it, particularly in locations that are far away from population centres.

We have instructed the industry to look at the extent to which those principles should be extended to the islands. We need to be cognisant of the fact that the links to the islands are quite different in nature from and at a higher cost than the rest of the transmission network. There is therefore a question about the extent to which cost reflectivity fully reflects those additional costs.

Our view is that it is right—and our modelling shows that it is better—for the system to be cost reflective. We are concerned that, if we were to start amending the transmission system to effectively start cross-subsidising across it, we would begin to interfere with a policy that rightly sits with Governments, which is the extent to which different technologies are subsidised. That is a matter for Governments rather than for the independent regulator.

Rhoda Grant: Have you not been doing that before? The costs that are associated with project transmit are quite different from the current pricing regime, so in some way you have either been subsidising or are looking to subsidise in the future. There must be some cross-subsidisation in that.

We have parked the socialisation of costs, because that has not been part of project transmit, but it seems that most people are reasonably pleased with the project. What seems to be the issue is that a costing does not seem to have been done for charging the islands something along the lines of the charge of their nearest mainland connection—for instance, looking at Orkney in relation to Thurso. A company that took power on to land in Orkney would pay four to five times the transmission charge that would be paid on the other side of the Pentland Firth, if power was taken on to land in Caithness. That puts such areas at a huge disadvantage, and a huge price range is involved in that.

What thought has been given to bringing that cost closer to the nearest mainland connection cost? What would the price for the consumer be? I understand that socialisation comes with a big price, but it is wrong to say that we are not subsidising or cross-subsidising—we are, or we have been in the past, because those two things do not tally. Where exactly are we, and what can we do? What is the art of the possible?

Ian Marlee: Our current system is based on a cost-reflective principle. The world is moving on, and more renewables are being connected to the system, so our charging system needs to move on. That is why we came up with project transmit at the earliest opportunity when we first got the powers to be able to do that, rather than leaving it to the industry. Project transmit recognises that the world is moving on, and we are moving to reflect that through the new cost-reflective process.

It is not right to say that there have been cross-subsidies in the past. We are trying to ensure that the system retains the cost reflectivity that it has had in the past. We expect the industry to consider through its process the specific issues that you raise, and we expect it—in the same way as we have done through project transmit—to engage with the wider stakeholder community, to take in and understand all the views and to come up with an appropriate solution. Ultimately, our test will be whether that benefits consumers across the country in relation not just to costs but to sustainable development.

10:15

Mike MacKenzie (Highlands and Islands) (SNP): Good morning. I note that in your submission you say that you feel a great responsibility to minimise costs to consumers—and rightly so. In this and a previous inquiry, the committee has heard that increases in the wholesale price of gas have been the most significant factor in the increase in household energy costs. Given that our own gas production is likely to diminish over the coming decades, do you agree that meeting—and, indeed, exceeding—our renewable energy targets is the best way of ensuring energy security and protecting consumers from gas price volatility?

Ian Marlee: As you will be aware, Ofgem's project discovery, which I led in my previous position in the organisation, examined future scenarios for energy, including where it would come from, the potential growth of dependence on gas imports and the ability to meet our renewables targets. As a result, we came to the view that the current market arrangements would not deliver in the best way for consumers—that is what our report ultimately concluded—and, as evidenced in our work not only in project discovery but in project transmit, we are very much trying to facilitate the move to low-carbon generation at the lowest cost to consumers.

Mike MacKenzie: In that case, and given that some consumers' energy bills increased by 18 or 20 per cent last year, do you not think that the cost of £25 to £30 a year that you have quoted for

socialising the transmission regime is fairly insignificant?

Ian Marlee: We have a duty to protect consumers' interests, which means that we should try to facilitate the meeting of the UK Government's renewable energy targets at least cost to consumers. As we know, fuel poverty is increasing in many areas, and we should avoid any increase above that which is necessary to meet the targets.

I say that with some caution because in project transmit, for example, we explicitly take into account the value of the increased chance of meeting renewables targets. In other words, we have a specific factor that takes into account the prospect that, under a different system, the chance of meeting the targets might be increased. However, we felt that it would cost too much to meet the targets through socialisation and our view remains that such an aim can be met at a far lower cost by improving the ICRP process.

Mike MacKenzie: Rhoda Grant rightly highlighted the fact that the proposed charging regime will leave Scotland's islands paying more, although I thought that her figures were optimistic. According to the figures that I have, charges in Orkney might be six or seven times those on the adjacent mainland.

We appreciate that a delicate balance needs to be struck, but I am sure that you will agree that figure 2 of your submission is relatively meaningless without the calculations and modelling that lie behind it. One of the things that puzzle me about it is why it should necessarily be the case that, if there were socialisation costs to meet, consumers in the north and south of Scotland would have to pay much more than consumers in London. Given that all consumers will benefit from renewable energy, surely it makes sense to spread the cost more uniformly across consumers throughout the UK.

Ian Marlee: At the moment, the system of cost-reflective pricing means that generators that are further away from population centres pay more; however, demand-side consumers in the same position pay less. As a result, socialisation would require an adjustment on both sides.

Mike MacKenzie: Do you not agree that, as all consumers will benefit from, for instance, wave and tidal energy produced in Orkney, it is only right for all consumers to contribute evenly to meeting the costs? Given the importance of energy to the UK economy, I wonder whether it is less the case that the energy generators are too far away from London and more that London is too far away from energy generation sources.

Ian Marlee: You are absolutely right to concentrate on all consumers; we are trying to find the solution that will meet the renewables target at least cost to all consumers. It is not for the independent regulator to say whether different places or forms of generation should be subsidised; that is—correctly—a decision for Governments.

Mike MacKenzie: So you agree with me but the Government is telling you to do this. Am I interpreting you correctly?

Ian Marlee: Not at all. We are an independent regulator; Government does not tell us to do anything.

We have to look at the targets as a whole and what we consider to be the right transmission charging system. We understand, for example, that island generation could well be cheaper than offshore wind generation and I am simply pointing out that questions about such choices are rightly for Governments to consider in their subsidy schemes rather than for the independent regulator.

Mike MacKenzie: I am sorry to say that I find that a bit unconvincing. It is almost as if you are saying, "It's not our fault we've made these recommendations—it's the Government," while at the same time stressing your independence.

Ian Marlee: No. We absolutely stand behind the recommendations. All that I am saying is that, with any subsidy regime that is in place, we must ensure that the transmission charging regime that sits beneath it is the most cost reflective that it can be to allow people to make their investment decisions accordingly. That approach produces the most efficient system at lowest cost to consumers. In effect, the subsidy question is for Governments, not the independent regulator.

Mike MacKenzie: Finally, are you familiar with European Union directive 2009/28/EC?

Ian Marlee: I am.

Mike MacKenzie: Do you mind if I read you a couple of pertinent sections from that directive?

Ian Marlee: Please do.

Mike MacKenzie: I will be interested to hear your response. First, recital 63 says:

"Electricity producers who want to exploit the potential of energy from renewable sources in the peripheral regions of the Community, in particular in island regions and regions of low population density, should, whenever feasible, benefit from reasonable connection costs in order to ensure that they are not unfairly disadvantaged in comparison with producers situated in more central, more industrialised and more densely populated areas."

Article 16.7 says:

"Member States shall ensure that the charging of transmission and distribution tariffs does not discriminate against electricity from renewable energy sources,

including in particular electricity from renewable energy sources produced in peripheral regions, such as island regions, and in regions of low population density."

On any reasonable reading, your draft suggestions in project transmit directly contravene the EU directive. How do you explain that?

Ian Marlee: We are confident that cost-reflective charging is fully consistent with the directive. It is worth noting that the directive requires cost-sharing rules on transmission to be based on

"objective, transparent and non-discriminatory criteria taking particular account of all the costs and benefits"

of the relevant type of production. In other countries, cost-reflective charging principles are being adopted, and we do not think that they are inconsistent with the directive.

Mike MacKenzie: You will have to forgive me, but the directive seems to be really clear and explicit—I commend the EU for producing such clear and explicit guidance—and I am sorry to say that I am unconvinced by your answer. The directive is specific and clear. Would you like me to quote it again?

Ian Marlee: That is not necessary. We genuinely believe that our proposed system is not discriminatory against islands or areas that are far from the high-density population centres. A cost-reflective transmission system is wholly consistent with the directive.

The Deputy Convener: We can have two further brief questions on this issue. Stuart McMillan is first.

Stuart McMillan (West Scotland) (SNP): My questions follow on from my colleagues' questions about the cost-reflective system. I understand from what you said that the further away generation is, the higher the cost will be. If that is so, why were nuclear power stations put in their current locations rather than places such as London, Manchester, Glasgow or Edinburgh, which would have made the costs for the end customer cheaper?

Ian Marlee: We recognise that certain forms of generation suit some locations more than other locations but, when decisions on locations are made, it is right for the generator to take into account the full costs of those decisions, which will include the costs of additional reinforcement of the transmission system.

Stuart McMillan: You are saying that it is one rule for renewables and a different rule for nuclear. Is that correct?

Ian Marlee: No—not at all. Nuclear will have exactly the same rules in relation to the charges that it faces on the system.

Stuart McMillan: Would you suggest that any new nuclear power stations should be placed in areas of high population rather than further afield?

Ian Marlee: No. I am saying that, in the decisions that generators will face in determining where they locate facilities and in the business case for generation, generators should take into account the full costs of their decisions, which will include the implications of the locational costs of their decisions. Locating facilities further from population centres will impose additional costs on the system, because of the need for more reinforcement of the transmission system.

Stuart McMillan: Who pays the additional costs? Are they socialised?

Ian Marlee: No. The additional costs are based on the existing cost-reflective principles and will in the future be based on any new proposals that are adopted. I will not go into too much technical detail, but one question is how much of the transmission system that is needed provides wider network benefits and how much is specific to a local generation plant. Therefore, a certain amount of the costs might be shared where there are network benefits and a certain amount of the costs will be faced by the generator where it is a local issue.

The answer to your question is detailed and will depend on the specific case in hand.

Stuart McMillan: Would you be able to—

The Deputy Convener: I said that you could ask a brief supplementary question, Mr McMillan. Another member wants to ask a question.

Stuart McMillan: Would it be possible to ask for some written evidence—

The Deputy Convener: No, Mr McMillan. You can continue your questions later, if we have time. A number of members want to ask questions and I will allow you back in if there is time at the end of the session.

10:30

Angus MacDonald (Falkirk East) (SNP): Thank you, convener. Apologies, Stuart.

Like other committee members, I have serious issues with the unfair system of locational charging that has been highlighted. Scotland faces the highest charges in the UK while subsidies are paid to generators elsewhere. The recognition that the current system needs to be reformed is welcome. It is disappointing, however, that there is little scope for a level playing field for island generators, as we have heard this morning. I hope that that can still be addressed.

I will give an example of how unfair the current system is. Aquamarine Power is progressing a 40MW wave energy project off the west coast of Lewis, which would be the world's largest fully consented wave farm, but it is still waiting for clear figures from Ofgem. Previous modelling suggests an annual charge of £77 per kilowatt, which, along with the annual connection costs, would equate to more than £3.5 million each year for the project. That is a massive penalty at an early stage. You will be aware that a renewable energy project of the same size in the south of England would pay just £40,000 a year.

Although the findings of the project transmit report are welcome, time is marching on and, if we have to wait a year for the CUSC panel that you mentioned to report back, how many projects will we see stalled or even abandoned due to the delay and uncertainty?

Ian Marlee: That is a key question that exercises us. We have consistently said to projects that, if they are concerned, they should come and speak to us individually. Transmission is only one issue; planning is another significant issue that the committee has spoken about, and there are a range of other costs and issues that the projects face. We have said that, if projects are concerned about that, they should come forward and speak to us, but no projects have done so. The offer is still there for projects to speak to us.

You mention the islands. Our modelling shows that the costs to the islands of using the main network would reduce to about 50 per cent of what they would otherwise be. Project transmit is already suggesting a lot in terms of trying to remove undue barriers in relation to new generation projects.

Angus MacDonald: It is all very well asking the likes of Aquamarine Power to come and speak to you, but if you cannot give them the detail until the CUSC panel reports, there will still be a degree of uncertainty even if they are talking to you.

Chic Brodie (South Scotland) (SNP): Mr Marlee, just how independent is Ofgem? The discussions that we have had suggest that, as in many other policy areas, the subsidies tend to drift towards the south-east. Never in my business puff have I come across a situation in which I did not look at the cost of supply and the supply chain and try to get the cost at source down to a reasonable level. Just how independent are you?

Ian Marlee: We are very independent. One is either independent or not, and we are independent. We have shown that through our actions. We heard from many stakeholders that we should look for a socialised solution.

As soon as we got the powers to lead a review of charging, we included socialised charging as one of the options and looked at and developed it. Our conclusion was that it was not the right option, but we also concluded that the status quo was not the right option. We needed to make sure that the regime was truly cost reflective, and that is what we have done. We have been commended for engaging with the process and listening to stakeholders, and we have come up with our independent view.

Chic Brodie: Yes, but is it not a somewhat spurious exercise if, as you said earlier, it is for Governments to determine the subsidy regime? I am assuming that one of the stakeholders that you engaged with before arriving at your conclusions was the Government.

Ian Marlee: I am sorry; could you ask that again?

Chic Brodie: Yes. I am sure that the exercise that you carried out was very thorough, but it conflicts with what you are saying about how you arrived at your conclusions and your earlier statement about how it is up to the Government to make decisions about subsidies. You have put great emphasis on stakeholder engagement, so presumably you talked to the Government before you arrived at your final conclusions.

Ian Marlee: The Government is clearly a stakeholder, as is the UK Government, the Scottish Parliament, and the other devolved assemblies. We listen to everyone and then take our independent view.

We do not judge between different forms of technology. We try to set up a system that means that we can make sure that we are delivering at lowest cost to consumers. As I said at the beginning of the meeting, we need to take into account consumers' interests when thinking about the reduction of greenhouse gases, so we do look at things such as—I am sorry to use jargon again—the option value of the fact that we might be more likely to achieve targets under certain systems than under others. In all our modelling, we made sure that the renewables targets were met under all scenarios. We then looked at what the lowest cost to consumers would be, bearing in mind the fact that the cost to consumer includes all the benefits of things such as the option value.

Chic Brodie: What input on securing consumer interest and the interests of small independent generators did you have into the draft energy bill that has just been produced? We have talked to such generators and they are concerned about the impact that the bill might have on their ability to enter the marketplace. How did you influence the draft energy bill in the interests of consumers?

Ian Marlee: I will start by talking about project discovery again. We did that study a few years ago and it concluded that the existing market

arrangements were not fit for the purpose of delivering secure and sustainable supplies at the lowest cost to consumers. Throughout the electricity market reform process, we have been in discussions with Government and have given the Government advice when we have been asked to, as it is appropriate for us to do.

Chic Brodie: Forgive me, Mr Marlee. I know that Ofgem gives advice. You have just said that it is an independent regulator. Does it have the teeth, the will or the desire to make the Government understand exactly what is happening out there from the consumer's point of view?

Ian Marlee: It is right for us to work constructively with the Government. If you look back at our previous publications, you will see that we have not been at all frightened of saying when we think that improvements can be made for the benefit of consumers. We did that consistently in respect of the renewables obligations, for example. We are willing to say what we think about Government proposals if we think that there are real concerns for consumers.

Chic Brodie: Well, there are real concerns for consumers here, so I hope that you take the message to Government that we expect to see a bit more than just will and desire from an independent regulator.

I will move on to Dr Ramsay and Mr Gallacher. I congratulate Mr Gallacher on the work that he has done in Scotland. Dr Ramsay, you mentioned that a lot of work is going on with Europe and said how full a role Lord Mogg is playing in establishing future electricity demand. Scotland hopes to be—and should be if we achieve our targets—an exporter of electricity rather than an importer. What role is being played by Scotland or Scotland's representatives in the discussions that you are having with Europe?

Dr Ramsay: In my introductory comments, I mentioned that we have quite a strong role in the north seas countries' offshore grid initiative, which 10 member states kicked off last year. It is looking at how we can work together with other countries in Europe to realise the renewable resource that is in the north seas—not just the North Sea, but the Irish Sea. Although one of the work streams is being led by the Department of Energy and Climate Change and its equivalent in the Irish Government, it is also an arena in which the Scottish Government is playing a role.

Chic Brodie: Can you detail how that happens? Who is the Scottish representative—or which department is—and how big a role are they playing in the negotiation, given that we will be supplying fairly significant amounts of electricity?

Dr Ramsay: To be frank, it is not a big role. The Scottish representative who is there today is called Liam Kelly.

Chic Brodie: It is not a big role.

Dr Ramsay: It is not a big role, but there is somebody there today and they have been represented in the working group meetings. They have been party to the deliverables that have come out. There is interaction, and I believe that DECC is working reasonably well to interact with all the devolved administrations on such issues.

There is another forum called the British-Irish Council in which the Scottish Government is present, which is looking more specifically at the issue of renewables trading. That plays directly into your comments about how Scotland can become a net exporter of renewables. Renewables trading is the mechanism under which member states can help one another to meet their renewables targets. If the UK has a surplus of renewable energy, as we hope to have post 2020, other member states that do not have a surplus but that still need to meet their targets will be able to pay for the surplus that comes from the UK or Scotland. Scotland is playing a part in the British-Irish Council discussions.

Chic Brodie: I would like to think that we play a part in the fisheries business as well, but we do not do so to the extent that we would wish.

Despite the state aid provisions in European legislation, I understand that in Denmark the state owns about 74 per cent of DONG Energy, a major provider. Based on the conversation that you have had, do you have a view on whether a public utility—for example, Scottish Water, if we were to create a subsidiary—would help you in the exercise of pushing down consumer prices by introducing real competition in the marketplace?

Dr Ramsay: I am not sure that I understand the question.

Chic Brodie: The question is simple: should there be more public involvement in the industry in terms of creating more competition in the marketplace?

Ian Marlee: We recognise that there are issues with retail competition in the current markets, which is what I think you are asking about. A retail market reform process is under way that is looking to increase competition significantly. In our consultation, we asked whether further action needed to be taken beyond trying to increase radically consumer engagement in the market through, for example, radical tariff simplification and making it much easier for consumers to engage. The response from consumer groups, particularly the more vulnerable consumer groups, was that we should push forward with those plans

before introducing something more radical and see whether they were sufficiently effective. We have not concluded our retail market reform, and such questions are being asked as part of that process.

10:45

Chic Brodie: This is my last question, convener. Mr Marlee, you have highlighted to my colleague Rhoda Grant difficulties in establishing costs and have also referred to market reviews; however, in your submission, you say that a key element of your new modelling process is the development of "well-justified business plans". How can that happen if you know nothing about the costs, the markets, the competition and so on?

Ian Marlee: The "well-justified business plans" are the first new price controls that we are using under our revenue = incentives + innovation + outputs, or RIIO, process. I do not know whether you have heard about RIIO, but I am happy to explain it if you wish.

The Deputy Convener: We have already had a number of presentations from Ofgem and members will have previously heard Mr Gallacher's clear and succinct explanation of RIIO.

Ian Marlee: Without explaining the background, I will say that the key point of RIIO is to ensure that the network companies are more flexible and innovative and can be held more to account for their outputs. However, to do that, they need to listen more to their stakeholders' needs. By placing a big emphasis on "well-justified business plans", we are making it clear that the network monopoly companies should be listening appropriately to their stakeholders and should have plans in place that will meet their stakeholders' needs at the beginning of the period and have flexibility over the period to meet those needs, so that there is no need to wait five or eight years before they draw up new plans.

Chic Brodie: I do not see any penalties attached to these incentives, this innovation or these outputs.

Ian Marlee: Oh, there are penalties.

The Deputy Convener: I have two quick supplementaries. Dr Ramsay, you said that 10 nations were involved in the north seas initiative. Aside from Ireland and the UK, which you have already mentioned, what are the other eight?

Dr Ramsay: They are Norway, Sweden, France, Germany, Belgium, the Netherlands, Luxembourg and Denmark.

Chic Brodie: Luxembourg?

Dr Ramsay: Yes, with its well-known North Sea coastline.

The Deputy Convener: In your last response, Mr Marlee, you referred to stakeholders and Ofgem's submission mentions stakeholder engagement. Who exactly are the stakeholders you are engaging with?

Ian Marlee: I probably cannot give you a full list here and now, but I am certainly happy to provide it later. We are engaging with the UK Government, the Scottish Parliament, the Welsh Assembly, developers, the network companies, consumer groups and a variety of other people. If you are referring specifically to project transmit, I will be more than happy after the meeting to give you a list of those with whom we have engaged.

The Deputy Convener: We would appreciate that. However, I was simply trying to find out how you engage with communities, particularly rural and island communities.

Charles Gallacher: Stakeholder engagement is clearly a major part of what our office in Scotland does. As Ian Marlee said, we engage with the Parliament and out in the wider stakeholder community and that engagement has included many visits to the islands over the years to try to understand the issues in those areas.

Stakeholder engagement is really important to Ofgem. Members should stop me if I am boring them, because I think that we might have gone over all this before, but we have set up consumer panels that run briefing sessions for members of the public and ask them to comment on policies. That activity has been invaluable to our work.

Ian Marlee has mentioned RIIO a number of times. The committee might remember from my presentation that a big element of that process is ensuring that companies are engaging appropriately with stakeholders in future, and we look forward to that happening.

John Park (Mid Scotland and Fife) (Lab): Good morning. In your written evidence, in answer to the question about the level of investment that is needed to deliver on the targets, you state:

> "Significant investment is needed in Scotland's electricity networks over the next decade to meet the renewables targets set by both the UK Government and the Scottish Government, and to ensure continued security of supply."

Will you highlight your concerns, particularly around the financial aspects of that level of investment? Do you see any problems on the horizon with the resource that is needed? If there are problems, what do you believe your role is in trying to ensure that those problems are smoothed over?

Ian Marlee: Our role involves trying to ensure that there are no undue barriers to investment. Before 2004, we had a price control regime that made it difficult for new investment to be made

until the end of a price control period. In 2004, we introduced our transmission investment for renewable generation programme. We then updated that for the last price control period in our transmission intensive investment programme, and now, under RIIO, we will have strategic wider works. That puts in place a process whereby companies can come to us and say that there is a needs case for building the transmission lines. There are developers that are at the right stage to come forward and say, "Please can you invest in the network so that it's ready for our project?" We have therefore put in place flexible arrangements to facilitate that.

Members know about project transmit—again, we have been trying to ensure that there is no undue barrier for renewables by ensuring that companies pay only a cost-reflective charge for access to the network. We have recently approved a user commitment modification that significantly reduces the security that new generators have to put up for their projects.

Our role is to ensure that there are no undue regulatory barriers in the system. It is the Government's role to address the subsidy regime and to determine the extent to which those forms of generation are subsidised or not.

John Park: Are you—given the changes that you have made to the subsidy regime—confident that there will be the necessary financial resource to make the significant investment in the upgrades that you mention in your written evidence?

Ian Marlee: Many factors that are outside our control will affect that.

John Park: I am just asking for your view.

Ian Marlee: I understand that. We know that a considerable number of projects—I think about 23GW worth—are currently in the planning process, and there are other factors that are outwith our control, so I cannot talk about those. I am confident that we are doing what we can in a forward-looking sense to try to ensure that there are no regulatory barriers.

John Park: On the wider issue of the human resource that is needed to make changes, has your organisation encountered problems in recruiting appropriately skilled people to work in your expanded Glasgow office? Charles Gallacher mentioned in his initial contribution that there will be further expansion. Do you envisage any issues around that?

Charles Gallacher: The short answer is no. One reason why we chose to expand the Glasgow office was ease of recruiting very high-quality postholders. We have been able to do that: we got a very good response to the adverts that we put out. The policy in Ofgem at present is that all vacancies, unless there is a really strong business case, are advertised as either Glasgow or London jobs. That means that, over time—it is happening already in our most recent recruitment round—most of the policy areas, of which we have quite a number in London, will have representation here in Scotland. In plain English, that means good-quality permanent jobs.

John Park: When we talk about the renewables targets, we talk much more about an industry. The Scottish Government is talking about the reindustrialisation of Scotland and all the employment opportunities that will come from that. Have you a view on the skills challenges that will arise? If so, have you concerns to highlight about issues that would inhibit the Scottish Government in meeting the targets? What interventions by the Scottish Government would help to meet the targets?

Ian Marlee: To be honest, those questions are probably best asked of the companies. We look at companies' plans when we provide for them. There is a big need for a step up in investment. We have provided £2.3 billion in the baseline for the Scottish transmission owner companies for RIIO-T1—revenue = incentives + innovation + outputs transmission price control review 1—which covers from 2013 to 2021, plus up to an additional £3.7 billion. That is a massive step up in the investment that those companies will make.

When we looked at the plans, we asked the companies questions about their operating expenditure. However, it is for the companies to ensure that they skill up for delivering against the outputs that they will be required to deliver over the period that I mentioned.

John Park: My final questions are to Dr Ramsay. We have talked a lot about the wider European market and about countries that have taken the lead in that. Does Scotland compare favourably with other countries? Can we learn from and apply anything that is happening in other countries to help us to meet the targets?

Dr Ramsay: Are you asking about achieving the renewables targets?

John Park: I am talking about the general policy direction and regulation.

Dr Ramsay: It is always interesting to look to countries that have achieved a high renewables output, such as Denmark. I know that the committee has been interested in Denmark's progress. In Ofgem's European team, the main issues that we look at all relate to interconnection and how it can be used more efficiently to help to integrate renewables more effectively into the system. Denmark has looked for a high penetration of renewables, and one reason why it can sustain that is that it is highly interconnected

north to Scandinavia and south into mainland Europe. Taking lessons from Denmark's system development and how it has managed to drive its level of interconnection would be valuable in realising the vision of exporting to Europe.

Another aspect involves looking to longer-term European Commission visions. It is pushing forward projects on electricity highways with a view to seeing how we can ship bulk power from, say, the north seas or north Africa into demand centres in central Europe. Seeing how the Scottish Government can play into such debates will be the sort of thing that carries Scotland forward post-2020, as all of Europe tries to realise ever-more challenging renewables targets.

Stuart McMillan: I apologise for not saying good morning to the panel earlier. Scotland exports about 25 per cent of its electricity output. As more renewables come on stream, that figure is expected to increase. Does Ofgem have any insight into how prices might develop as Scottish generating capacity increases?

Ian Marlee: Are you referring to retail prices—prices to consumers?

Stuart McMillan: Yes.

Ian Marlee: The issue relates to lots of different things and what the ultimate pressures are. In our project discovery, we looked at four potential futures. One involves high-intensity carbon generation continuing, and two involve very high renewables targets.

In all four scenarios, the pressure on prices was upwards, and we believe that that is still likely to be the trajectory. It is not part of our job to forecast retail prices, but that work suggested that there would be an upward trajectory in retail prices over the next 10 years.

11:00

Stuart McMillan: Some of the evidence that we have received so far has indicated that, in countries in which there has been a high investment in wind power, the exporting costs have been affected. Those countries have been exporting at a lower cost, but when they need to import power, they are paying a higher cost to do so. Is there a risk that when Scotland has more renewable power on stream, we will pay higher prices for importing but will export at a lower rate?

Dr Ramsay: I would not say that it was a risk: that is the reality of efficient use of interconnection. If interconnectors are being used efficiently, they will, when prices are low, export power to higher-price areas. When there is a surplus of wind-generated power, prices will be depressed and power will be exported. There is a chance that when we overproduce, other countries—Norway, for example—may benefit from being able to fill up their reservoirs to sell us back the power when we need it. That is absolutely what we want an integrated system to do, because that is the efficient way to use it. We need to remember that there are two elements of value that come from renewable power generation: the wholesale energy and the wholesale value, which, in your example, is potentially being undermined.

There is also the green value that comes from carbon-free generation. Under most renewables support schemes, that value comes only when you are producing through feed-in tariffs or renewables certificates. Even if your wholesale energy price is zero, or close to zero, renewable generation will still be rewarded by the renewables support scheme.

The concept of renewables trading is crucial for ensuring that that system works. If the UK is producing more renewables than it needs, we must ensure that there are other member states that still need to meet their own targets and that are willing to support the green value that comes from that energy.

On whether we are concerned about how power would flow on interconnectors, that is the right way and we would not want to do anything that would inhibit flows of power in that way. Indeed, to do so would be against European legislation.

Stuart McMillan: Thank you for that. Earlier, the example was given of trading being discussed in the British-Irish Council. How does that operate? More renewable energy is generated in Scotland than in Wales, for example. What mechanism is in place to reach the targets? On wholesale prices, is there a detrimental effect on the Scottish element in comparison with the Welsh or Northern Irish elements? How does it work?

Dr Ramsay: At present, discussions around renewables trading that are happening under the British-Irish Council do not go into that level of detail: it is not done within member states. That is currently being taken forward by DECC, so there is essentially a decision for Government to make on whether it wants to trade its renewables targets. Two streams of work are being pursued. DECC has called for evidence—I believe the call closed recently—on how benefits may come from either import or export of renewable energy. It will then be able to provide more detail on its thinking around that. DECC is pursuing the fundamental question whether renewables trading is a good idea.

A sub-group of the British-Irish Council is, through case studies, exploring how that might work—how energy might be exported from the UK to other regions and how it might be imported from Ireland into the UK. The discussions are more

about how the UK interacts with other member states than about how the targets will be met or shared within the UK.

Stuart McMillan: That was helpful. Thank you.

Angus MacDonald: My question on European energy market integration has been covered. Do you want me to go on to smart meters, convener?

The Deputy Convener: Go ahead.

Angus MacDonald: Ofgem has said this morning that it is working to remove regulatory barriers that restrict the development of smarter and more responsive networks. What regulatory barriers exist now and what is being done to remove them?

Ian Marlee: Does your question relate to smart grids and smart networks?

Angus MacDonald: It is about smart metering and the network system.

Ian Marlee: I have mentioned, on the transmission side, a number of areas in which we are trying to ensure that barriers do not build up. As I am sure everyone knows, the world is changing rapidly. We need to ensure that the regulatory system keeps up with changes, of which I have mentioned a few.

A few points relate to the distribution side, where smart grids are concerned. We have the low-carbon network fund—the LCNF—which gives companies an incentive not only to deliver on established outputs but to innovate, to ensure that they think about the future challenges. For example, energy on distribution networks has traditionally gone from transmission networks to consumers. There is every possibility that in the future, in a world of smart meters and smart grids, energy might travel in the opposite direction. We now have distributed generation.

The distribution companies therefore need to innovate to manage the new challenges. We are taking that forward through RIIO and we are moving our LCNF into a network innovation competition. We are also giving companies network innovation allowances. Under the network innovation competition, people will bid for funding for big schemes. That is a bit like the LCNF, as companies will not own the intellectual property in the output; that is, how specific initiatives can help us to move towards smart grids and to get the benefit from smart meters. That is because consumers will have paid for that, so it will be shared for the benefit of all the companies and—ultimately—all consumers.

Network innovation allowances are smaller amounts that allow companies to make smaller innovations and ensure that they are rewarded for that. We are also a member of the smart grid forum, which is looking at such issues and trying to ensure that there are no regulatory barriers to developing smart meters and smart grids.

Angus MacDonald: You reckon that there are barriers that need still to be addressed. Has any assessment been made to determine whether smart technology will be likely to have an impact on reducing peak demand and matching supply to demand?

Ian Marlee: The smart grid forum is looking at such things. I will go back to an earlier point. We are not complacent; we want to ensure that the regulatory system facilitates the move to low-carbon generation. However, the emphasis is much more on ensuring that the regulatory system keeps up with the changing environment. That is the challenge for us. All our initiatives try to ensure that we keep up with the changes that are happening.

Charles Gallacher: I do not know whether the committee is aware of the northern isles new energy solutions—NINES—project on Shetland, which involves SSE and a host of others. I commend that project, which is well worth looking at and which has a website. It is all about balancing the local network and electric heating in 600 or 700 homes with energy from waste, hot-water storage and, I believe, the biggest battery in the world.

Angus MacDonald: We will certainly check that out.

As far as you are aware, are all eight major electricity suppliers on board with regard to the smart metering system?

Charles Gallacher: I am not aware of any that are not.

Ian Marlee: I emphasise that the innovation side is probably more radical than I am making it sound. We, as regulator, have said, "Actually, we shouldn't be funding people for just continuing as they are." Recognising the changing world and that we need to ensure that the network companies are thinking more innovatively about the future has been acknowledged as being a regulatory innovation in itself.

Patrick Harvie (Glasgow) (Green): I want to take you back briefly to the offshore transmission issues that were raised earlier. In your written evidence, you talk about changes in relation to the links between offshore wind farms. Your submission says:

"these changes could potentially be adapted to also help the development of a European offshore network if this does materialise."

Is that really the situation that we are in? Is it still a matter of whether and not how an offshore network will be built?

Dr Ramsay: That is under discussion in the North Sea offshore grid initiative. The very fact that that initiative exists and that 10 member states managed to get round the table and sign a common document means that there is certainly a positive direction of travel towards development of the offshore grid. However, the aim of the two-year project was to come up with some more concrete evidence that would convince the assembled member states that that was the right thing to do. The purpose of the activity that has been continuing for just over 12 months and which will conclude at the end of this year is to come up with a "go" or "no go" on further work for the North Sea offshore grid. At this stage, it is not a foregone conclusion.

Patrick Harvie: During the inquiry, we have heard witnesses emphasising the vital nature of that kind of project. Your written evidence goes on to say:

> "Ofgem is now consulting on how coordination might be achieved by making changes to the current GB regulatory regime for offshore transmission assets."

It strikes me that it must be very difficult to think about what the role of a regulator is in relation to that process without there being clarity. There is a comparison that I will make. It is hard to envisage the rail regulator sitting here saying, "We're thinking about how we might regulate high-speed rail in the absence of a clear policy decision that we're going to build it." Do we not need a clear political choice by the Governments that means that it is not a matter of whether, but of how we will design, finance and build the infrastructure?

Dr Ramsay: If there was a unanimous decision among the member states involved, that would undoubtedly be incredibly helpful, but it is still possible to make progress in the absence of such unanimity. We have shown how that can happen with the offshore co-ordination work that is examining how, nationally, we can co-ordinate the activities that we are pursuing offshore. We are still able to take steps in that direction, and the work that we are doing on interconnection is another step in the right direction. It gives us interaction with regulatory authorities on the other side of the Channel and on the other side of the North Sea and enables us to start to think ahead about how compatible our regulatory regimes and the interactions between our transmission system operators are so that we can plan assets.

It is a matter of starting simple with things such as an interconnector as opposed to the more complicated meshed grids that might involve interconnection and an offshore network plus renewable generation. We can make incremental steps, and there are technologies that can be included from the early stages that mean that no-regret or minimum-regret steps can be taken.

Patrick Harvie: I can see that getting all the countries on the same page is complex. Do you feel that your role in this early stage of the process is in the context of strong UK Government support?

11:15

Dr Ramsay: We definitely do. That is something to speak to DECC about. There has been strong support from DECC for the initiative, and strong support from the minister for the interconnection work, as well as for the offshore grid.

Patrick Harvie: Thank you. I have a couple of questions about the general role of the regulator. It is clearly a period of extraordinary change in the industry, in terms of technologies, the policy context of what we are trying to achieve, finance, and who is involved in decisions. To what extent is there still a debate about the role of the regulator, regarding whether the role needs to change and whether the regulator has sufficient power to get in among the players in a changing market? Some of John Park's questions about resources and capacity may be relevant, as well. I am thinking about how the regulator is designed, and what it is expected and able to achieve. Is there still a debate about keeping it relevant to a changing world?

Ian Marlee: Independent regulation has provided great stability and is seen as a positive thing by investors, because they are sinking vast amounts of money into, for example, network businesses that need to make returns over very long periods. Investors take a lot of comfort from independent regulation in the same way that, on the other side, consumers know that they have someone looking after their interests, as a whole.

An Ofgem review a couple of years ago confirmed the regulator's role, but there is the constant question whether the regulator has sufficient powers and whether, in a changing world, we need more powers in certain areas. I will give you a prime example. At the moment, we can fine companies when they do something wrong, but we cannot direct that money back to the affected consumers—it goes back to the Treasury. That has been an issue for us when there has been detriment to consumers. The Government is currently looking to give us powers for consumer redress, whereby we will be able to require companies to direct the money back to consumers. We need to look continually at whether we have the appropriate powers to do our job. There would be concern if there were constant

fundamental reviews of regulation, but it is right that our powers are kept under review.

Patrick Harvie: The balance between the aspects that we pay for through taxation and the aspects that we pay for through bills is a theme that has come up from a few members. How do you see that debate? Clearly, you have a role in the latter, but any energy generation technology needs substantial amounts of money from the Government and taxpayer support. For example, the decommissioning of nuclear plants is paid for by taxation, not through people's bills, which changes people's perception of and relationship with the matter. We are giving the likes of *The Daily Mail* a field day with the opportunity to talk about how much support and subsidy for renewables is adding to people's bills, which is frequently exaggerated. Even the renewables sector needs smaller things from taxation, such as the current investment in harbours, which the committee was looking at earlier this week.

Where do you see the debate about the balance between taxation and billing, and the fact that, as a regulator, you have the ability to deal only with the latter and Government makes decisions about the former?

Ian Marlee: It is fair to say that Government makes decisions about the latter, as well, with Government schemes. Therefore, that is a question for Government rather than us, as Government will determine with its legislation where that money will come from.

Patrick Harvie: So you do not see the regulator as having a role in the debate about the balance between aspects of our energy needs that are paid for by the bill payer and aspects that are paid for by the taxpayer.

Ian Marlee: It is wholly right that Government sets the high-level policy for the energy industry, which will include determining where the money for its schemes will come from.

The Deputy Convener: I have a supplementary question on Ofgem's role in overseeing what is happening on energy production. How many recommendations has Ofgem made to the Government that have been rejected?

Ian Marlee: Sorry, but in terms of what?

The Deputy Convener: In terms of the policy direction that Ofgem has identified and presented. You highlighted Ofgem's independence, although there is a level of interdependency between Ofgem and the Government. Ofgem is tasked with drawing up recommendations for the Government on how to drive forward energy policy in the UK. You have said several times that it is up to the Government to make decisions on policy. Surely, as an independent body, Ofgem's role is to make recommendations to the Government. How many of the recommendations that you have made to the Government on the issues that members have identified have not been taken forward or have been rejected by the Government?

Ian Marlee: We have a duty to provide advice to Government under section 47 of the Electricity Act 1989.

The Deputy Convener: To clarify, you offer only advice to the Government, not recommendations.

Ian Marlee: In effect, we offer advice to Government. Much of that advice is put in the form of options, as happened with project discovery, when we said that we believed that the current system was unlikely to deliver and that there were options. It is right for Government to make the high-level policy decision, but we give the options. That is generally the way in which we approach the issue. I referred earlier to our statements on the renewables obligation scheme, which are a matter of public record. We raised concerns about aspects of that scheme. The approach will depend on the issue but, in effect, we offer advice to Government rather than formal recommendations.

The Deputy Convener: Ofgem is an independent organisation that exists to protect the interests of the consumer. Surely, as an independent organisation, you should give not just advice, but recommendations and conclusions on how you would like to drive the industry forward, which the Government can either accept or reject. I am asking about Ofgem's fundamental role. You say that you see Ofgem's role as to offer only advice to the Government and not recommendations to drive forward the agenda.

Ian Marlee: Ultimately, our statutory duties are set by the UK Parliament and they are what we have to deliver against.

The Deputy Convener: So you are not independent.

Ian Marlee: We are absolutely independent, because—

The Deputy Convener: If you are set up under Government regulations, as I said, there is a level of interdependence between Ofgem and the UK Government, and Parliament establishes the body.

Ian Marlee: In many respects, we share the same duties as the secretary of state. Our duties are established by Parliament. Government has set the high-level policy, which will be clarified in future through its strategy and policy statement. It is right for Government to set high-level policy. We are independent in that we take the duties that are set by Parliament and make independent decisions on them, not under the direction of the Government of the day. In fact, under European

legislation, we cannot take direction from Government on many aspects.

Angus MacDonald: You will be aware that there has been renewed interest within the past few months in an interconnector between Iceland and Scotland or the UK—an interest that has been resurrected by Landsvirkjun, which is an Icelandic state-owned renewable energy company. I understand, from discussions with previous attendees at the committee, that that has been on-going for about 15 years. The original plan was to link into the North Sea grids via the Faroe Islands and, possibly, Shetland. I am curious as to whether there is any progress on that from your side. Will you update us on that?

Dr Ramsay: From the regulatory perspective, we have not had any direct contact from the developers involved. The project was discussed before my time in Ofgem, and there may have been interaction then. There are developer partners that we have had discussions with about different interconnector projects and they have mentioned that it is still in the pipeline. The energy minister, Charles Hendy, has been visiting Iceland, so obviously it is very much a live project, but, as far the regulatory regime or wrapper that might go around such a project is concerned, we have not had any in-depth conversations with the developers.

Rhoda Grant: We have had evidence from developers who are concerned about user commitment payments, and making payments up front because, sometimes, their grid connections can be six or seven years ahead and that is tying up their finances. That is even more difficult for a community project as that money requirement may be prohibitive to getting the project off the ground. Payments are also lost if the planning consents are not given. It seems to be a chicken-and-egg situation for developers. Do they get a grid connection? Do they pay the money up front? Can they afford to pay the money up front? If they do not, there is a longer lapse between gaining planning consent and getting a grid connection. Is there a role for Ofgem to look at why that happens and how the process can be made simpler for small developers and communities? Should Ofgem anticipate where grid connections are required and build them without a cost to the developer until they are ready to go on stream?

Ian Marlee: There are two issues on user commitment. If your question is about community schemes, the issue is more about distribution user commitment, rather than transmission and connecting to the high voltage system. In respect of the distribution system, we definitely expect people to feed into the RIIO-ED1 review—the electricity distribution price control review. We want to understand where there are difficulties. Clearly, there must be a balance. User commitment is there for a reason: there are investments that need to be made, and, if the projects do not turn up, we have stranded assets, and, potentially, that value, without user commitment, would fall direct to the consumer. We will be looking at that balance in the ED1 price control review.

I have referred to transmission and the recent big changes that we have made to the user commitment levels that have reduced substantially the security that would have to be held for connections to the transmission network. That drops further once planning consents have been granted. We are trying to ensure that the user commitment requirement is proportionate to the risk that consumers face of the potential abandonment of work that has already been done.

Rhoda Grant: Transmission costs are a relatively small part of bills—I think you said 4 per cent. Is there scope to increase that proportion and to reduce user commitment payments?

Ian Marlee: We have already looked at that issue and substantially reduced the user commitment payments. I do not have the numbers to hand, but the payment used to be 100 per cent and I think that it is down to 42 per cent; once planning consents are achieved it will fall to 10 per cent of the securities that are required to be held.

11:30

Mike MacKenzie: Surely if Ofgem was ahead of the curve as a regulator, the committee would not have heard considerable evidence from small-scale generators who are in a gridlock situation. As Rhoda Grant explained, many of them have put up large amounts of money up front to get into the queue, only to be told two or three years later that there will be another delay and that a connection cannot be guaranteed. Surely if the regulator was on the ball, that could never happen.

Ian Marlee: We are a forward-looking regulator. We anticipate upcoming issues as we see a changing world. We have made a number of quite radical changes—some of which I have mentioned already—over the past few years to try to make sure that the companies are responding to their consumers.

It is worth saying that it is—and it has been—for the companies to listen to their stakeholders, make those changes and bring the changes to us for approval. That is why we have emphasised the importance of stakeholder engagement in this process and why we have put it at the top of the agenda for the new RIIO price controls.

Mike MacKenzie: You say, “try to make sure”—does that suggest an element of frustration on

your part that you do not have sufficient powers to regulate in that instance?

Ian Marlee: "Try to make sure" is probably just my personal language. The companies know that they are increasingly being held to account over the level of stakeholder engagement that they have pursued. For example, we fast-tracked the Scottish transmission owners through the RIIO price controls. Fast-tracking them in effect allowed them to not have to go through further processes—it allowed them to get on with the job. Part of the justification for allowing them to do that was that they were required to demonstrate to us that they had done sufficient stakeholder engagement. That meant that we were confident that their business plan really did represent the outputs that their stakeholders wanted. We are increasingly putting more emphasis on holding the companies to account on the engagement that they are doing with their customers and their stakeholders.

Mike MacKenzie: It still seems that you either hold them to account or you do not. It has been suggested that some of the smaller-scale generators, including communities, are crowded out by larger generators. Given that these network monopoly companies are sometimes large-scale generators themselves, or getting into that market—or companies that are related to them are—is there any possibility that small generators or community generators are being disadvantaged due to a vested interest situation?

Ian Marlee: The network operators are under strict requirements to ensure that they do not unduly discriminate between their customers. If we had evidence of discrimination, we would have to look at whether they were breaching their licence requirements.

Mike MacKenzie: I get the impression again that there is perhaps a bit of frustration on your part because you can give those companies gentle nudges, or recommend things and hope that they might pay attention, but you do not really have the teeth to compel them to do the right thing.

Ian Marlee: On the contrary, if we were presented with evidence, investigated the matter and found that they were breaching their licence requirements, they would have opened themselves up to significant fines.

Mike MacKenzie: So you would investigate only if you were presented with evidence—you do not scrutinise the situation continually to ensure that such things could not happen?

Ian Marlee: We monitor various outputs of companies, but the kind of issues that you are talking about—for example, if a company is not delivering appropriately to its customers—would have to be brought to our attention. Clearly, we are an evidence-based regulator, so we would need to look at evidence that was presented to us and make an assessment on any individual cases.

Chic Brodie: You referred to something being brought to your attention. Do you do any random auditing of the companies, with consequential reports and penalties if a company does not comply?

Ian Marlee: Absolutely. The companies regularly report to us and, indeed—

Chic Brodie: No, no. I understand that companies report to you, but I am not asking about that. Do you do random, unannounced audits of companies in relation to the new RIIO? If so, how successful have companies been in addressing issues that arise from such auditing?

Ian Marlee: If we have suspicions, then we may well investigate the companies.

Chic Brodie: Mr Marlee, I understand that. I suggest that an organisation such as yours that has a statutory responsibility should do random audits of companies and not wait for stuff to be brought to your attention or for companies to report to you. I suggest that it is part of your organisation's job as a regulator with particular responsibilities to go and do random audits.

Ian Marlee: It is worth saying that we scrutinise the companies involved much more than an average company would be scrutinised. We get them to provide us with regular reports. Indeed, it is worth saying that through that reporting we have had investigations that have led to fines because companies have not delivered their outputs. In addition, we have had misreporting cases that we have then dealt with in the appropriate fashion. The network companies are highly scrutinised and report to us regularly in quite a lot of detail.

Chic Brodie: You are not answering the question that I am asking. You say that they report to you. I am sure that they are full of integrity and honesty in producing their reports, by and large. The issue is that you are reactive and not proactive in scrutinising the companies. From what I hear, you wait until they report to you, then you will analyse the reports and see whether they are achieving the targets that you have set in your agreements with them.

Ian Marlee: No, not necessarily. When we have a reasonable question about whether the company is performing, we may well make specific requests for additional information. That is the nature of our powers and the way in which we scrutinise the companies.

Chic Brodie: It is not the way in which I would deploy those responsibilities, but there you go.

The Deputy Convener: I have no indications of other questions from committee members, so I thank the panel of witnesses—Mr Gallacher, Dr Ramsay and Mr Marlee—for their evidence. I am sure that if any issues need to be followed up, the clerks and the Scottish Parliament information centre will do that. Likewise, if the witnesses want to clarify any of the evidence that they have given, we would certainly welcome any further information that you have to give to us.

11:38

Meeting suspended.

11:43

On resuming—

The Deputy Convener: I welcome our second panel of witnesses, who are David Odling and Alix Thom from Oil & Gas UK. Do you wish to make brief opening statements?

David Odling (Oil & Gas UK): Yes, thank you, convener. Good morning. I am the energy policy manager for Oil & Gas UK and I am the principal author of the written evidence that we submitted to you. I have some 35 years' experience in the oil and gas industry. I was in power generation before that.

For the past 12 years I have been employed by what used to be known as the United Kingdom Offshore Operators Association, which for many years was just for the oil and gas producers. However, some five years ago, we opened it up to the entire industry and renamed it Oil & Gas UK. We now have an extensive membership that includes not just the oil and gas companies but companies right through the supply chain, amounting to some 240 members. We are the principal trade association representing the offshore oil and gas industry in this country.

Alix Thom (Oil & Gas UK): I am the employment and skills issues manager for Oil & Gas UK. I have worked in the industry for more than 20 years in a major oil company, a major contractor and at least two independents. Prior to that, I did a PhD in offshore industrial relations and worked for the Convention of Scottish Local Authorities.

It is worth pointing out that the industry that our association represents is still the largest investor in the UK. This year, it is forecast to spend £11 billion in the UK continental shelf. It is believed that we support 440,000 jobs in the UK, 45 per cent—almost 200,000—of which are in Scotland, and the majority of those are in highly skilled or professional roles. It is an industry with a bright future, as it is forecast that there are between 14 billion and 24 billion barrels of oil equivalent still to be recovered from the North Sea.

The Deputy Convener: Thank you very much for those brief introductory remarks. Stuart McMillan has the first question.

11:45

Stuart McMillan: Good morning, panel.

I have a couple of questions about recruitment and skills shortages. A few members of the committee recently visited Orkney, Thurso and Wick as part of this inquiry. One point that was raised in relation to recruitment and cross-industry working was that there appears to be a reluctance on the part of the oil and gas industry to share expertise with the renewables sector. That came across quite strongly, despite the fact that companies in the oil and gas industry have invested in the renewables sector. It was quite a confusing picture. I am keen to hear why the oil and gas industry might not want to share some of its expertise with the renewables sector.

Alix Thom: You make an interesting point. I do not have any evidence of that. I would be glad to hear some more specifics and to get back to you with a more detailed response.

It is certainly the case that there are many areas in our sector in which there are transferable skills that would work well in the renewables sector, but that is not to say that we have surplus resources. That is certainly not the case. Our sector is extremely active and busy at the moment; in fact, we have skills shortages. From time to time, we hold discussions with the renewables sector. For example, I recently attended a meeting with representatives from various UK police forces, at which we talked about emergency response arrangements and offshore safety issues. Those would be common areas on which we would be happy to share information. If you could identify specifics, we would be happy to get back to you.

David Odling: As well as investors, a number of companies in the supply chain have a foot in both camps, including prominent companies such as AMEC.

I am always puzzled when people tackle us on this subject, which comes up from time to time, because the jobs market is an open market. People are free to apply for any job that they wish to apply for. As Alix Thom said, we are short of human resources at the moment—we are looking for a huge number of people. Individuals have a free choice when it comes to where they want to work.

Stuart McMillan: Is the competition for staff between the oil and gas sector and the renewables sector healthy, or is it unproductive?

Alix Thom: He has read your submission, David.

The competition will inevitably lead to increases in labour costs, unless we can increase the talent pool. However, that is something that we are finding within our own sector at the moment because, as David Odling said, we are short of a considerable number of people, for a number of reasons, not least because we are a global industry. The labour market is very hot at the moment and we are seeing wage inflation.

David Odling: Something that has stuck in my mind is that about two years ago, the Crown Estate, which licenses the offshore territories sea bed, came to see us to discuss some of those matters. Its opening gambit was, "You're a declining industry and we're a rising industry in offshore renewables. Therefore, you're obviously going to have resources to release in our direction." We had to disabuse them of that notion very firmly because that was not how we saw it two years ago. It is certainly not how it is today.

Stuart McMillan: Scotland has more than 13,000km of coastline. With the oil and gas sector in the country, and the potential for the offshore renewables sector as well, would you suggest that there is plenty of space for everyone, and that there is therefore also plenty of opportunity, particularly when it comes to employment, provided that we can get the training sorted out?

Alix Thom: There is certainly plenty of opportunity; the problem will be getting enough people with the right skills, at the right time.

Stuart McMillan: What is your solution?

Alix Thom: I can speak only for our sector, where we have a number of initiatives under way. As a trade association, we are working hard with our members to develop a robust picture of our industry demand so that we can understand the exact disciplines and get a fairly accurate handle on the numbers—as accurate as we can, bearing in mind the variables of oil price and other things going on in the market.

We are exploring opportunities for industry collaboration, on top of existing collaborations. For example, we have an industry-wide apprenticeship training scheme, and some of our member companies have already been successful in recruiting and retraining people mid-career from outside the industry. We are investigating how we can increase that uptake. We are trying to explore every avenue.

As an industry, we are actively engaging with schools, colleges and universities. We put a lot of resources into encouraging young people to take the right subjects, usually STEM—science, technology, engineering and maths—subjects. We encourage them to choose those subjects early on so that they have the opportunity to enter the broadest range of energy industries.

Stuart McMillan: I want to ask about the training opportunities that are available in the sector. We know that the oil and gas companies are already investing in renewables. From the point of view of longer-term planning, and in order that those companies have the potential to diversify in future, you would expect that they would be keen to transfer their staff over to the renewables arm when things really take off. What skills transferability are you building into your training programmes to allow that to take place?

Alix Thom: We are not building in transferability specifically, but many of the skills and disciplines that are already being studied, for example certain engineering disciplines and technician schemes, are readily transferable as they are. Skilled craftsmen are another area. Although an increasing number of our members are involved in renewables, particularly in the subsea sector, it is still a relatively small part of the business compared with what they are doing in oil and gas. Given the level of activity that is forecast at the moment, I would be very surprised if there was a large-scale move of people in the short term.

David Odling: In the engineering disciplines, essentially, we all start with the same feedstock, namely the main structural, mechanical and electrical disciplines coming out of the universities and colleges. Each industry then builds on that to suit its particular circumstances and all the derivatives that sit under them.

To a degree, of course, that is true among the skilled workforce as well. I remember the early 1990s, when there was an exodus of electricians and mechanical people from oil and gas because the Channel tunnel had reached the outfitting stage. The tunnel had been built and, suddenly, there was a mass of work to be done in installing pipework, fire systems, electrical kit, control systems, instrumentation and signalling. A mass of folks transferred to that, and they came back three or four years later.

Provided that people have the basic skills, they are adaptable and can work in any number of different industries within the overall areas of energy, transport and so on.

Alix Thom: The Olympics have had an impact.

David Odling: Yes, and we saw the same thing with Heathrow terminal 5.

Stuart McMillan: Do the oil and gas firms consider investing in renewable energy to be a prudent strategy?

David Odling: Well, it is Government policy in Scotland and throughout Great Britain and

Northern Ireland, and it is European policy. After all, there is a mandate at the European level that EU countries should achieve 20 per cent of their needs from renewable sources by 2020. The UK has a slightly lower target because it started from a very low figure—the target is only 15 per cent. Others have higher targets. We accept policy as it is.

Stuart McMillan: But do you consider it prudent for the oil and gas industry to invest in the area? Irrespective of the policy element, do you think that it is wise to invest in renewable energy?

David Odling: I do not think that it is for us to decide on such high-level policy matters. I really do not.

Alix Thom: The majority of our members are not oil and gas companies per se but contractors to the major oil and gas players, so oil and gas are one market for them. As I mentioned, in the subsea sector, oil and gas are their biggest client area at present, but renewables are another major player.

Stuart McMillan: Thank you.

The Deputy Convener: Chic Brodie has a supplementary question.

Chic Brodie: It is good to hear that we have 40 years, or whatever it is, of oil and gas left, as long as we meet our hydrocarbon targets.

I want to ask about two things. One is the emphasis on the North Sea. I have been in dialogue with people about this. There was oil drilling off the coast of Arran some 30 years ago, which was capped by Mrs Thatcher because of Polaris submarines going up and down the Firth of Clyde. I do not know whether it is known how many barrels of oil and gas equivalent there are off the west coast, but that just emphasises the point, because if it is there—I am sure that it is—and we were to develop it, that would lead to even more of a problem with the skills issue.

Secondly, we heard from Mr Nelson, who is managing director of Allied Vehicles, about the business of encouraging youngsters to go into the industry. I do not know whether you find that difficult in your areas. How much encouragement is given to the educators—the teachers—so that, instead of you going in, they come out and experience exactly what happens in your industry?

Alix Thom: That is an interesting point and I will certainly take it back. I said earlier that the industry apprenticeship scheme takes about 105 apprentices a year. That is not the total intake for the industry but just the intake for that one scheme. This year, we have had 1,800 applicants, so we think that we are doing a pretty good job of attracting young people into the industry.

Our members tell us that their graduate application schemes are all oversubscribed, but that does not mean that we can be complacent. It is important to us and to the economy that children are encouraged to enter the energy sector.

We have a project called the earth science education unit, which has been supported by the industry for 11 years. It delivers professional development to general science teachers to enable and equip them to teach earth sciences in the classroom. It is not focused on oil and gas; it is about teaching generic earth sciences. The project has been very successful: it is one way for us to get teachers out to speak to professionals, and we have a nationwide network of facilitators who deliver it.

12:00

Rhoda Grant: I want to ask about skills again, because there is an issue with skills shortages in the energy industry more widely.

With regard to apprenticeships, you spoke about people coming out of college and university with certain skills, and companies taking them on and upskilling them to meet their own requirements. How far do your organisation and the companies that you represent seek to skill people through apprenticeships? Do you take on young people and skill them up to meet your needs in the future? What proportion of the workforce would you see starting at that very early age?

Alix Thom: Yes. As I mentioned, we have an industry scheme that is run by OPITO, which is the offshore petroleum industry training association, and the Engineering Construction Industry Training Board. The scheme takes in 105 technician trainees per year straight from school. OPITO very recently issued a survey on the number of apprenticeship schemes in the industry. It revealed 78 schemes, and another potential 13 schemes that are to be developed in the next few years. We know that there will be at least 350 apprentices coming in each year for the next three years. That is only in the companies that have responded to our survey, so we know that there are more apprentices in the industry than the numbers that I have given.

We also recruit hundreds of graduates—I do not have the specific numbers at present, but OPITO is carrying out a piece of work on that. Our member companies are telling us that they are successful in recruiting a sufficient number of quality graduates.

Rhoda Grant: Do you need to do more in that regard? What would make it possible for you to do more?

Alix Thom: We are definitely looking into that. We are very keen to try to do more if we can, particularly on apprentices. The apprenticeships tend mostly to be in the offshore workforce, which is only 10 per cent of the total workforce in our sector. The remainder are onshore positions, many of which are in highly skilled engineering or professional roles.

We are seeking to encourage more companies to take on apprentices. There are some physical restrictions—for example, the number of beds offshore, and the amount of work that has to be done. Of course, people are needed to mentor and train apprentices.

David Odling: Part of the broader picture for the energy industries as a whole covers the past 20 to 25 years. Energy prices from the mid-1980s onwards, right through the 1990s and into the early part of this century, were pretty low. There were a lot of other things going on in the economy, and resources tended to go to other parts of it. Now, since around 2005, things have swung back, and huge investment is required. There is a big investment boom in the energy industries, in this country and right across Europe, and in other parts of the world such as North America.

Unfortunately, we are finding that there is a shortage of people who have 10, 15 or 20 years of experience. They are the crucial people, the ones who can lead the design teams and be the construction managers and project managers. More than anything, we are seeing the consequences of that decline over a 15 to 20-year period. If the rate of recruitment had not gone down, we would have been able to fill some of the gaps that are now developing. There is no doubt that we can attract a lot of new people, but the rate at which all energy industries can absorb new people is necessarily limited—there is a capacity concern there. Getting the balances right presents a serious conundrum.

Rhoda Grant: When the committee visited Caithness, we heard about the Nigg skills academy. It fast-tracks apprenticeships, squeezing into a short space of time a course that might otherwise take years to complete. Is that a way of meeting the demand now, even though it would not address the problem of there being a shortage of people with more experience?

Alix Thom: David Odling's point is important: we have significant experience gaps. If we do not have people with mid-career experience, we cannot mentor new entrants. That is a challenge. The fact is that new entrants simply cannot undertake the roles that those experienced people would fill. However, some of our member companies are saying that they are thinking about moving their apprentices to a different offshore rota so that they can get additional on-the-job training, which will fast-track their progress.

A number of companies are successfully recruiting from the forces, the nuclear industry and BAE Systems and are developing fast-track conversion courses of five weeks to three months to upskill people so that they can become effective in the industry. There is a much shorter lead time in those cases, as those people are already experienced in their disciplines.

Chic Brodie: We are here today to discuss the achievement of our renewables targets. One thing that will have a major impact on that is the draft energy bill that has just been produced by the United Kingdom Government. In your submission, you were fairly assertive about the impact that the subsidy regime will have on the markets, and renewables are clearly a part of that. Could you comment more on the implications for the market, with specific attention to renewables?

David Odling: The difficulty that we foresee is that a considerable number of instruments have been introduced or are about to be introduced in the energy markets. The picture is becoming quite complicated, and our worry is that, although the market system that we have built since the late 1980s and the 1990s has been extremely successful in many respects and has kept the prices of electricity and gas below those on the continent almost uniformly throughout that period, we seem to be moving towards a system that requires a lot more Government intervention and a lot more of these instruments. It is difficult to see how everything is going to fit together. That is the point that we are trying to make. We are asking whether that will challenge the market that exists already and, if so, what the consequences of that will be. Frankly, we do not have any answers to that—I am not sure that anybody does. However, it seems to us that the picture is getting extremely complicated.

Chic Brodie: Your submission talks about investments and the availability of funds. Scotland is already ahead of the target for renewables and, as we know, there is fairly substantial inward investment. Do you wish to expand on the issue? The supply chain, in particular, is having great difficulty in getting both debt and equity funding. Does that not support the view that there must be a less complicated Government subsidy regime?

David Odling: You are right about the difficulty in getting debt and equity funding. Not only the supply chain but some of our smaller operator members find that difficult and they are dependent on those external sources of finance. There is no question but that that is a significant problem.

The subsidy regime requires the customer to pay when he or she consumes the electricity or

whatever it is, but the problem is that the investment must be financed years—sometimes decades—ahead of that. The capital must be raised first, and we know that a number of technologies are capital intensive. There are very low running costs but extremely high capital costs that must be dealt with at the beginning. That is where the tension lies. The repayment of costs, through a subsidy or whatever, comes later, but all the money must be raised at the very beginning, before the plant can even be built. In these financially constrained times, that is an enormous difficulty, particularly if balance sheets are already strained.

Chic Brodie: My last question is probably an unfair one. On that basis, do you think that the objective of the draft energy bill to create an environment in which there is price certainty is unlikely to be achieved?

David Odling: Perhaps because we are so used to the oil market—to oil and gas generally—we find it difficult to understand how prices can be made predictable. Who knows what the prices will be in the future? We have a fair idea of what they will be in the short term, as we can see where they are going and the markets will help to tell us that, but that is just two or three years forward and no further. Who knows what might happen five or 10 years out, never mind 15 or 20 years out? One has only to cross the Atlantic to see the astonishing change that has occurred in the American market because of the new technology. It is controversial in some areas, but the fact is that it has transformed the North American gas market. In turn, that has suppressed the demand for coal in North America, which means that coal prices around the world, which had been going up and up, have turned back down again. Who predicted that? Nobody. We really cannot see far into the future.

Mike MacKenzie: My question follows on from that point. Given that, ultimately, there is a finite supply of gas and oil, is it not reasonable to expect that, despite short-term fluctuations here and there, overall we are going to see increases in the prices of oil and gas in this country in the future?

David Odling: That is undoubtedly the perceived wisdom, but perhaps I can express it to you like this. Ten or 12 years ago, there was a significant movement concerning peak oil, which said that the world was going to reach a point of maximum oil production sooner rather than later, by 2010 if not before, and that, thereafter, all hell would break loose—excuse my words, as that is a slight exaggeration. However, the economics changed things. When prices rise, things change. Now, people are saying that peak oil production may occur because the demand for oil will peak, not because the supply will be constrained. I do not know which view is right—frankly, I do not have a clue—but I know that the peak oil theory that was being expounded 10 or 12 years ago is looking a lot less robust today.

People thought that gas was following a similar line, but it is not. It has taken a completely different turn in the past few years, so much so that the International Energy Agency published a special version of its world energy outlook almost exactly a year ago that it called “Are we entering a golden age of gas?” Since then, the IEA has followed that up with a number of publications, including the recent “Golden Rules for a Golden Age of Gas”. The IEA is talking more positively in that vein. Who knows what will happen? I always worry if something is predicated on an assumption of what the future will be so many years hence. The game changes—it is always changing.

12:15

Mike MacKenzie: From a UK perspective, given that we have moved from being a net exporter to a net importer of gas and, increasingly, that situation looks set to continue on into the future, do you agree that we might have less energy security and more price volatility because we no longer produce gas ourselves?

David Odling: Energy security is a complex matter that is founded on many different factors. Relying on overseas supplies does not, of itself, mean insecurity. It need not mean insecurity. After all, in my lifetime and in that of many of those who are here, we have had energy insecurity during periods of industrial unrest in this country. It has not necessarily been caused by external events. Obviously, external events can affect us, but that is why we have to build resilient systems, and we have built an extremely resilient gas system in this country. In fact, it is much admired by our continental cousins in Europe for its resilience and openness. As long as the politics are right, there is no reason why we should not continue to have energy security.

Mike MacKenzie: On a slightly different subject, when I read your written submission, I was struck by the unfortunate sense that the oil and gas sector sees itself as being in competition with the renewables industry. How representative of the industry is that view, especially given that companies such as Statoil are beginning to invest heavily in offshore wind? Is your view representative of that of the industry?

David Odling: No; the point that the submission makes was the subject of the earlier questions that my colleague Alix Thom answered. We do not want to have to compete for resources, because it would inflate everyone’s costs.

Last year, I went to two lectures that were given by wind developers in round 2 of the Crown Estate's offshore licensing. One was in the east and one was in the west. The developers said then that they were already competing for resources among themselves and with the oil and gas sector. Our interest is in building up resources so that we all have a reasonable chance of making the investments that we all want to make.

Mike MacKenzie: Your written evidence refers to scepticism about the efficiency and payback costs of things such as heat pumps, and you advocate gas as a much better heating solution. I can understand that, but I am sure that you are as aware as I am that many of our island communities, for example, are off the gas grid, so the use of gas is not open to them. Given that, do you think that it would be wise to recommend special incentives for renewable energy generators located on islands or other remote and peripheral parts of Scotland where people are off the gas grid? You will also be aware that fuel poverty on the islands is running at 50 per cent.

David Odling: Fuel poverty is really a shame on the country. However, to the extent that we know the detail of it, we feel that, no matter whether we are talking about heating with electricity, oil, gas or whatever, improving the energy efficiency of the housing stock is the fastest, most effective way of cutting people's energy consumption. That must be the principal route. The decision whether there should be special subsidies for this or that is surely a political one.

Mike MacKenzie: Without intruding too much into an area that, with the greatest respect, you might not know all that much about, do you accept that much of the housing in our islands comes under the hard-to-insulate and hard-to-heat category and that that is why that particular route has not been taken? Secondly, will you answer my previous question about whether a special case can be made for renewable generation in our island communities and whether Government should support such a move?

David Odling: I certainly recognise how difficult it is to insulate old housing stock. As someone who lives in a solid-wall Victorian house, I know that it is extremely expensive to change the fabric of the building.

As for your second question, I honestly do not feel that the matter is for us to decide. Surely it is a social policy matter to be funded from Government revenues, if that is thought appropriate.

Mike MacKenzie: Let me put it another way. Are you aware of any plans to extend the gas grid to our island communities?

David Odling: It is not our area of expertise. We are producers of oil and gas, not sellers to end users of oil and gas. As a result, we are not involved in the matter in that kind of detail.

Patrick Harvie: Before dealing with the points that I had intended to raise, I will ask a brief supplementary to the questions that Mike MacKenzie asked. You said that it is not for you but for others to comment on policies, but your submission contains a table in which you assess the risks involved in a host of interventions and rate the implementation of energy efficiency measures at level 3—in other words, high risk. You keep saying that you are not best placed to comment on policy matters, but you seem quite happy to lay into them.

David Odling: In that table, we were trying to give a quick snapshot of the various programmes that the Government is debating at national level. We gave the implementation of energy efficiency measures a rating of 3, which is at the high end of the scale, simply because of the pressure on resources. After all, implementation is all about resources, which include people, manufacturing capacity, installation capacity and so on. However, you can see that from a technical and financial point of view that element got a very low mark.

Patrick Harvie: My point is that, on how to make it easier for people to burn less fossil fuel, we should perhaps pay attention to the people who do that job and know about it and to their assessment of the costs and the risks, instead of listening to people whose job is to pump such fuel out of the ground.

David Odling: We made no bones about the fact that the table was a very simple, broad-brush picture that tried to look at all the major policies that are in the current programme.

Patrick Harvie: Let me turn to your general comments about the targets. We have heard from a wide range of witnesses—we are coming to the end of the oral evidence for our inquiry—and pretty much everybody who works in renewables has told us that the targets, including the target of the equivalent of 100 per cent of electricity consumption coming from renewables in Scotland, are eminently achievable.

National Grid said that the targets are achievable and even some of the hostile voices—for example, anti-wind lobbying organisations—said that they are achievable but come with a cost, and such people would prefer the targets to be achieved somehow without wind turbines. Is it purely a coincidence that the most hostile evidence that I can recall the committee hearing about the renewable energy targets is coming from the fossil fuel industry?

David Odling: We looked at the required investment and compared that with our rate of investment. Over the past 30 to 40 years, we have

been the biggest industrial investors in this country's economy—that applies in Scotland and right across the United Kingdom. Our cumulative capital investment, up to the end of 2010 and in 2010 money, has been about £300 billion in just over 40 years. You will understand that there have been some very big investors.

The British Government's programme, of which the Scottish part is an important part, is worth £200 billion and it is supposed to be achieved in the course of a single decade from 2011 to 2020. We are asking whether that rate of investment is really achievable against the backdrop of what we have done over 40-odd years. We suggest that the targets are more likely to be achieved by 2030 than by 2020.

Patrick Harvie: Why do you think that the people whose job is to seek that investment in renewables—who are securing some of that investment right now—are saying that that is achievable whereas you, with a different economic interest, are saying that it is not?

David Odling: That is fine—everybody is entitled to their own analyses and views. We have presented you with ours.

Patrick Harvie: Okay. I have a slight concern about how you have presented in your written evidence the target of the equivalent of 100 per cent of our electricity consumption in Scotland coming from renewables. You make a direct comparison between the UK-wide target of 15 per cent of all energy coming from renewable sources and Scotland's target of the equivalent of 100 per cent of electricity consumption in Scotland coming from renewables. Is that not a false comparison? Much as I might wish that we could set a target of 100 per cent of all our energy coming from renewables, that is not what the target is—it is the equivalent of 100 per cent of our electricity consumption. Have you not misrepresented it?

David Odling: You could possibly make that argument but, if the UK-wide target of 15 per cent were to be achieved by 2020, it would be predominantly—indeed, almost entirely—in the electricity sector. To that extent, there is a comparison between the circumstances in Scotland and the circumstances across the United Kingdom as a whole. That comparison is perhaps not obvious as it appears in print, but that is the point.

Patrick Harvie: You say on page 1 of your written evidence:

"We fully support governments' desire to reduce emissions"

of greenhouse gases. I presume that you mean both Governments, which have set legally binding interim targets as well as long-term targets for a reduction in those emissions of up to 80 per cent by 2050.

David Odling: Yes.

Patrick Harvie: So you fully support those targets.

David Odling: We support their achievement in economically efficient ways.

Patrick Harvie: It seems pretty clear that those targets cannot be achieved unless we burn a lot less fossil fuel. Do you agree with that?

David Odling: Clearly, we have to reduce emissions. On a 10-year view, the fastest way of reducing emissions is to stop burning coal in power plants. That will reduce emissions faster than any other means that is available.

We will have to make up the gap that then arises, whether that is through renewables or new nuclear power—although I do not think that there will be any new nuclear power in the United Kingdom before 2020, and I know that there will not be in Scotland.

12:30

Patrick Harvie: Sure. I was not looking to get into a discussion about one power station technology versus another. A case can be made that short-term gains can be made by replacing coal with gas, but whether that is compatible with a long-term trajectory, given that it locks us into using that gas, is perhaps another debate.

I was simply noting that an 80 per cent reduction in our greenhouse gas emissions, not just from electricity but from transport, cannot be achieved without a reduction in our reliance on fossil fuels in general. Burning less fossil fuel is surely an essential part of achieving the target.

David Odling: Unless we can find a way of abating the carbon—

Patrick Harvie: Which we have not found yet.

David Odling: Which we have not found yet.

Patrick Harvie: I just wonder how credible your support for the drive to reduce emissions is in the context of your commitment to continuing the policy of recovering as much oil and gas resource from the UK continental shelf as is economically possible. You have said that the equivalent of up to 24 billion barrels of oil is still to be recovered. If we are serious about achieving the targets, that means burning less fossil fuel. How can that be compatible with a policy objective of extracting every last drop that we can?

David Odling: First, that is not simply the industry's policy objective—it is the Government's policy objective.

Patrick Harvie: You have described it as a policy that is

"agreed between government and the industry".

David Odling: Yes. If you speak to any Westminster minister, he will confirm that.

Patrick Harvie: My question is how that is remotely compatible with the need to burn less of the stuff.

David Odling: Because the extent to which we can produce our own supply determines whether we will need to import less. At present, technologies are moving fast, but they have not yet eliminated a lot of the means of consumption. After all, the transport sector worldwide is almost totally dependent on oil at the moment. That is not going to change in a hurry—it will change, but only slowly.

Patrick Harvie: Our use can change, as well as the technology.

David Odling: Yes, but it is technology that will cause the change.

Patrick Harvie: Okay—

David Odling: Well, it is—

Patrick Harvie: There is a danger of getting into transport policy, which, again, is not what we are here to talk about.

David Odling: No, but it is technology that will drive the change.

Patrick Harvie: I will finish my point by asking a question. You are talking about the risks that are involved in meeting the targets—for example, the risk that the investment will not be achieved. My concern is that we have to achieve some of that if we are going to be viable as a species. We have to achieve the greenhouse gas reductions if our civilisation is to avoid the appalling consequences of inaction on that.

The question is: how can we transition from one source to the other? It seems to me that all your evidence is about how many renewables we can add into the mix, rather than how we can transition our energy dependence away from dirty fossil fuels and on to renewables.

David Odling: A lot of that depends on one's view of the future. It is very difficult to know where we will go. One can imagine that some technologies will still be around in 15 to 20 years' time but, come 2030, there may be a whole new range of technologies that will simply supplant some of the things that we take for granted today. We simply do not know—we cannot see that far ahead. That is part of the difficulty, is it not?

Patrick Harvie: But we know that we have to achieve the emissions reductions.

David Odling: We know that we are committed to achieving those emissions reductions.

Patrick Harvie: I do not want to labour the point, but I will have one last go. Would it not be reasonable for us to expect both Government and industries—not just your industry—to be working in the context of a transition from one polluting technology to less polluting technologies, or to less use of the polluting technologies? It seems that your evidence is all about how many renewables we can add into the mix rather than how we can transition from one technology to the other.

David Odling: That is a very broad question. The energy intensity and the emissions intensity of the economy of this country as a whole are progressively getting better and better as the years go by. That has been going on not just for the past four or five years but for several decades. We can go right back to 1970 and see it—it is happening relentlessly.

Patrick Harvie: We have been largely offshoring industrial processes such as manufacturing, which are still happening elsewhere in the world, and we have a moral responsibility for those emissions even if the chimneys are not in this country.

David Odling: Possibly, but the position is also due to much greater efficiency in the way that we use fuels these days. Every form of equipment is more efficient today than it used to be. After all, the so-called dash for gas in the 1990s made huge, dramatic reductions in the power sector's emissions of not just CO_2 but all sorts of other pollutants. That was a very clear demonstration of where technical superiority won the day.

Patrick Harvie: So you are recommending another dash for gas.

David Odling: No, I am saying that technology will keep on evolving. That is where the effort needs to go. Personally, I would love more money to go into research and development on new technologies to drive some of the changes.

Rhoda Grant: I have a short question on the conclusions in your paper. Your second conclusion states that there will be a continuing dependency on oil and gas and

"that this should be reflected in the government's policies."

The implication is that that is not part of Government policy. Are you unhappy about that? That might be a very wide question.

David Odling: That is a very good point. Perhaps I should have written that the matter should continue to be reflected.

Rhoda Grant: So no improvements are required to be made.

David Odling: There are always going to be improvements in everything—that is the normal state of affairs.

The Deputy Convener: There are no further questions. I thank Alix Thom and David Odling for the evidence that they have provided. I make the same offer as I made to the earlier panel: if you wish to add anything to the evidence that you have given, based on the questions that have been asked, the clerks will be happy to receive that.

12:37

Meeting continued in private until 13:04.

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e-format first available
ISBN 978-1-4061-9088-5

Revised e-format available
ISBN 978-1-4061-9102-8

Printed in Scotland by APS Group Scotland