ECONOMY, ENERGY AND TOURISM COMMITTEE

Wednesday 11 February 2009

Session 3

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ECONOMY, ENERGY AND TOURISM COMMITTEE
5th Meeting 2009, Session 3

CONVENER

*Iain Smith (North East Fife) (LD)

DEPUTY CONVENER

*Rob Gibson (Highlands and Islands) (SNP)

COMMITTEE MEMBERS

*Ms Wendy Alexander (Paisley North) (Lab)
Gavin Brown (Lothians) (Con)
*Christopher Harvie (Mid Scotland and Fife) (SNP)
*Marilyn Livingstone (Kirkcaldy) (Lab)
*Lewis Macdonald (Aberdeen Central) (Lab)
*Dave Thompson (Highlands and Islands) (SNP)

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Alex Johnstone (North East Scotland) (Con)
Jeremy Purvis (Tweeddale, Ettrick and Lauderdale) (LD)
David Whitton (Strathkelvin and Bearsden) (Lab)

*attended

THE FOLLOWING GAVE EVIDENCE:

Alison Kay (National Grid)
Audrey MacIver (Highlands and Islands Enterprise)
Alex MacKinnon (Scottish Power)
Paul Neilson (Scottish and Southern Energy)
Jason Ormiston (Scottish Renewables)
Steve Smith (Office of Gas and Electricity Markets)

CLERK TO THE COMMITTEE

Stephen Imrie

SENIOR ASSISTANT CLERK

Katy Orr

ASSISTANT CLERK

Gail Grant

LOCATION

Committee Room 1

Scottish Parliament

Economy, Energy and Tourism Committee

Wednesday 11 February 2009

[THE CONVENER *opened the meeting in private at 09:37*]

10:00

Meeting continued in public.

Energy Inquiry

The Convener (Iain Smith): Good morning again, colleagues. We come now to the public part of our fifth meeting of the Economy, Energy and Tourism Committee in 2009.

Agenda item 2 is to take further evidence on our energy inquiry. Today, we will concentrate on transmission charges, other energy infrastructure issues and the role of the regulator, which is the Office of Gas and Electricity Markets. Members have received a note from the clerk that summarises some of the key issues. In this phase of the inquiry, we want to hear what Governments and others should be doing. Therefore, I urge witnesses to state clearly what recommendations they want the committee to make. Now is their chance to do that.

I ask the panel members to introduce themselves by saying where they are from. They can also make brief opening remarks before I open the discussion to questions from members.

Audrey MacIver (Highlands and Islands Enterprise): Hello there. I head up the energy team for Highlands and Islands Enterprise. I thank the committee for inviting me back and for giving HIE a further opportunity to inform the committee's inquiry.

Renewable energy is a key priority for Highlands and Islands Enterprise. I reiterate that renewable energy is really important for the future economic growth of the region and for its dispersed benefits throughout the Highlands and Islands. The grid and transmission charges are two fundamental issues for ensuring that generators can secure a route to market and for realising economic potential. That is what I will focus on.

Paul Neilson (Scottish and Southern Energy): Good morning. I am transmission development manager for Scottish Hydro Electric Transmission Ltd, which is part of the Scottish and Southern Energy group. I am concerned with planning the transmission system in the north of Scotland and its integration as part of the wider Great Britain grid.

The Scottish and Southern Energy submission is given from a group perspective. I will focus my comments on the transmission issues that are associated with the areas of the group's activities for which I am responsible. I want to highlight the large amount of activity and plans that we have for the reinforcement of the grid in the context of the wider GB network. I will also highlight the mechanisms and proposals that we have made at group level that we hope will make best use of the wires that we can provide.

Alison Kay (National Grid): Hi. National Grid owns the high-voltage transmission network in England and Wales and we operate the transmission network here in Scotland. Over the past year, we have spent a lot of time looking at the renewables targets of the United Kingdom Government and of the Scottish Government. We have worked with the Scottish transmission owners to see how we can best facilitate a grid that gets those renewables connected. We recognise Scotland's huge importance in the renewables game. My primary purpose today is to explain what we have been doing and to listen to what others believe we can do to better facilitate the connecting of those renewables to the grid.

Jason Ormiston (Scottish Renewables): Hello. Thank you very much for the invite to speak today. I am the chief executive of Scottish Renewables, which is the trade association for the renewables industry in Scotland. We have more than 240 members, most of which are involved in, or want to be involved in, generating electricity from renewable sources.

Our members have told us that their three key problems are planning, the grid, and skills and recruitment. I believe that all three of those issues are interconnected and need be considered in any discussion of transmission and distribution network issues. I hope that we will be able to discuss that today.

Alex MacKinnon (Scottish Power): Good morning. I am the regulation and trading arrangements manager for Scottish Power energy wholesale, which is the generation part of the business.

The two issues on the table today—transmission charging and energy infrastructure—are very important to us. Infrastructure is vital, so we welcome the committee's recent recommendation on the designation of national developments. The key incentive for us is investment in both the infrastructure and generation sides, which are the issues that we have put in our submission to you.

The Convener: I thank you all for your opening remarks. I will start the ball rolling with a general question before inviting my colleagues to join in. Does the present statutory and regulatory framework within which the transmission network operates encourage or hinder the development of renewables in Scotland?

Jason Ormiston: Does the present statutory framework hinder or promote the development of infrastructure in Scotland? There are two ways to look at it. From our perspective, it is all about getting access to networks and making an appropriate charge for the use of those networks.

A current short-term problem is that connection offers have been made to an awful lot of projects, but they cannot connect to the transmission and distribution networks until after 2018. Some of those renewable electricity projects have planning consent; some of them are going through the planning system at the moment and are due to get determination in the next few years. Short-term solutions to the problem are being considered—for example, National Grid will try to move projects forward as and when it can. It can do that within the objectives that it has been set by Government, so the statutory framework is working in that regard.

The locational signals that the current statutory framework has sent hitherto to investors in new grid—we need that investment—have not been fit for purpose. The evidence of huge congestion caused by projects waiting to get on to the networks tells us that the system has not worked. That said, however, the situation has been recognised by Ofgem, National Grid and the Westminster and Scottish Governments, and there are moves to seek the investment that is required to get generating capacity on to the network as quickly as possible so that we can meet the 2020 targets for renewable generation. That is useful.

The other statutory framework that needs to be considered is Scotland's planning system. I am glad that the committee supports national development 7 in the national planning framework, which is about grid reinforcements and investment. Nevertheless, the NPF is not a panacea. The entire planning system needs to step up to the plate and improve its performance. The Beauly to Denny power line was proposed for initial investigation in 2001, and the proposal was submitted formally in 2004; there should have been a positive decision in 2008. The long and drawn-out public inquiry closed last year and we are told that the minister is about to receive the report from the inquiry unit. The system is taking too long to deliver the required infrastructure and that statutory framework is not working. However, we should be able to learn from those mistakes and make it work.

Another area of the statutory framework is regulation and Ofgem's role. I understand that you will hear from Steve Smith of Ofgem later. Ofgem has a clear idea of what the requirements are for the future and it is working with the industry to deliver them. It is perhaps less sympathetic to some of the needs in Scotland, such as the problem of transmission charges and the wrong investment signals that it sends. Alex MacKinnon, on my left, is an expert on transmission charges, so please ask him lots of questions about them.

The current regime is volatile and unpredictable and the costs are excessive, which sends all the wrong signals to thermal and renewable generators in Scotland. Thermal energy is important in ensuring that we have a mixed supply of reliable and affordable electricity generated in Scotland.

Alison Kay: I could reiterate a fair amount of what Jason Ormiston said, but I will be brief. I would reverse the order of the points that Jason Ormiston made. We feel that the biggest block to getting renewables online in Scotland is the planning regime. The Scottish Government has done a huge amount to try to unblock some of the problems, which will release an awful lot of the renewables projects that are currently stuck in the queue.

That said, I agree with Jason Ormiston. We need to consider utilising the existing capacity better, and one way to do that is through short-term queue management. As Jason said, we and the Scottish transmission owners are actively considering who has consents and who is ready, willing and able to move up the queue. We can do that under the existing regulatory and statutory framework. We have made proposals to advance 450MW over the past few months, so we are making significant progress in that regard.

Is the present system getting the best out of the existing capacity? Probably not. Ofgem and the UK Government initiated a review of transmission access, which is now working its way through the process. The industry has got together and has worked very hard to make six amendments to the current statutory framework. Five of those are before Ofgem, and the regulatory impact assessment is being prepared. The sixth of those amendments, which is an auction model, will go before Ofgem later in February. We are considering more effective ways in which to allocate the existing transmission capacity.

On the point about building new network, I thoroughly agree with Jason Ormiston. Utilising the existing network is only part of the solution; we need to build more transmission capacity to get more renewables on to the system. We have made a huge amount of progress under a body called the electricity networks steering group. It is

jointly chaired by the Department of Energy and Climate Change and Ofgem. We have worked with the Scottish transmission owners in considering what the network needs to look like in 2020. The final conclusions are due to be reported to the ENSG next week. That will provide an holistic view of what the network needs to look like. We have made some real progress there.

With the Scottish transmission owners and Ofgem, we are considering the way in which we invest in the network. The regulatory framework currently obliges transmission companies to wait until we get a signal from a user that they are ready to connect. We recognise that that will not necessarily be the optimum arrangement in the future, so we are in discussions with Ofgem to consider how we are incentivised to build some capacity ahead of getting such signals from users.

Transmission charging is progressing under the transmission access amendments to the statutory framework. We have a licence obligation to charge cost reflectively. We have interpreted that to mean charging on a locational basis, and we have not had a great deal of notification to the contrary. That is the way that we have charged in the past.

We have proposed alternative mechanisms, including one that was put forward jointly by the Scottish Government and the Scottish transmission owners, to move to a different system of charging. That proposal is tracking through our transmission methodologies forum now, and it is going through a consultation process.

We have a licence obligation to charge cost reflectively, as I said, which we do not believe is compromised by the existing locational charging approach.

Paul Neilson: I will speak about the statutory framework and the pending changes to it. From the perspective of an entity that is seeking to build transmission, we welcome the proposal to designate grid reinforcements as a national development under NPF 2. I believe that the committee discussed that last month, when you heard from my boss, Mike Barlow. That is welcome, and we are pleased that such good progress has been made. That designation will help to smooth the path for what could be a difficult thing to achieve. Much of the work that is designated or that it is proposed to designate in the north of Scotland comprises the uprating of existing routes on existing towers. The analogy that I sometimes use is that if we nipped out and did it in the dark, the next morning people would not notice that anything had changed. That indicates the degree of work involved in the uprating.

10:15

To enable us to progress the advance study of those works, to prepare any environmental assessment and to do any advance engineering, we have a constructive and forward-looking allowance in our funding arrangements, agreed with Ofgem. That allowance enables us to progress the advance works ahead of actually pushing the button, digging holes and getting out on the ground. It is a useful facility that enables things to happen as quickly as they can.

The first port of call for generators that seek connection to the grid is to get in touch with the wires company—subject to the size of the proposed development—and ask, “What’s the picture? What are the chances? How soon can we get plugged in?” It is not that we do not know the answer but, unfortunately, there is no one under the current regime who can give them a straight answer. The inability to get a handle on when they will be connected is a problem for investors trying to make an investable proposition, whether it is a community scheme, or a larger scheme that will be directed through the current framework, which is the national grid. They say, “Even if I put my money down, will I be able to tell my sanctioning authority, when I’m seeking funding for my generation development, that I’ll be on at date Y?” It is still not possible to give them an answer to that question.

Our group submission to the committee identifies a straightforward solution to that access uncertainty, which is called connect and manage. It is a pragmatic solution that would address not only the uncertainty felt by generators seeking connection, when they try to bank a project and sell it as an investable prospect, but the concerns of the transmission licensees, who are trying to second-guess what will come along and when. Connect and manage would take the guesswork out of the equation for both parties. As transmission investors and constructors, we would know with a high degree of certainty that someone who had committed on a predetermined timescale would be there when they said that they would be there.

Further, when it comes to making the planning justification for any works that need to take place, connect and manage enables us to point to the committed project that may by that time even have started construction and say, “That’s why the reinforcement is required.” It provides the transmission investor and the generation developer with the confidence to invest. The group position elaborates on the simple and straightforward connect and manage solution that would minimise the uncertainty both for the transmission investor and the generation developer.

Audrey MacIver: To pick up on what Paul Neilson said, from our perspective, the issue for developers is the uncertainty in terms of connection and of the charges that they will incur, particularly in the island areas. There is an urgent need to resolve that, but under the current framework it has not been cracked yet.

We welcome the encouraging moves that are being made through the transmission access review process and the ability to enable the transmission operators to do some of the pre-engineering works at this stage. We welcome, also, the longer-term vision of a grid infrastructure that will meet our 2020 targets. However, in the meantime, given that we have a relatively young industry—particularly on the marine energy side—we need to encourage moves from prototypes to small, precommercial connections of 5MW, 10MW or 30MW. That needs to happen between now and 2018 or 2020. It is about encouraging a process that enables that to happen and gives guarantees to developers and investors. From the perspective of the marine energy industry, and for island generation projects, we need more certainty for investors.

Alex MacKinnon: I agree with almost all that has been said; I will point out where we disagree.

Grid reinforcement is the most important thing. There is a large queue of renewable generation waiting to connect in Scotland, so we cannot say that the current framework is discouraging it, but generators in Scotland are paying much higher transmission charges than generators in England, Europe or the United States—we are internationally owned, as are many companies. At a time when limited capital is available, when it comes to deciding where that capital should be invested, if returns are unattractive or uncertain, the investment will go elsewhere.

So, on the grid side, many people are working very hard and the main issue is probably planning. On transmission charging, however, we, along with the Scottish Government, SSE and Scottish Renewables, have put to National Grid and Ofgem the simple proposition that everyone in Great Britain should pay the same for being connected to the grid. The Scottish grid is vital to Scotland's energy future, but is also vital to that of the UK. It is perverse to discourage generators from using the northern part of the grid through the system of transmission charging.

As Alison Kay said, National Grid and others argue that their charging is cost reflective; it is not. We do not see how it can be cost reflective to charge generators in the north of Scotland £22 and pay generators in the south of England £9 for connecting to a grid that has been constructed for strategic reasons. That is one of the main obstacles to long-term investment. There are benefits available to renewables generators that outweigh the high transmission charges, so a lot of renewables generators are coming forward, but Scotland also needs thermal generation and getting investment in that is proving to be difficult because of high transmission charges.

I agree with much of what has been said. The grid, and investment in it, is the first most important thing; then there is planning. Looking to the future, however, if changes are not made to transmission charging, renewable generation, generation in Scotland and the UK's targets will be compromised.

The Convener: We will come on to discuss transmission charging in more detail in a moment, but Rob Gibson has a specific follow-up question.

Rob Gibson (Highlands and Islands) (SNP): We talked about the national planning framework and the identification of the grid upgrades. I live about a quarter of a mile from the line that runs from Dounreay to Beauly. The panel seems to be falling between several stools. Who is going to make the decision to let people know when the upgrade to that line is going to take place, how it is going to be funded, and who is going to have access to it? There are so many projects along that line that there are commitments to 2018. Without going into the details about the islands, can any of you tell me who is going to give that certainty in the connect and manage proposals? Who is going to say that the line is going to be upgraded at a certain time? Who is going to say to us and to the public that a structure exists that is fit for purpose in this day and age? That is not clear to me at the moment.

Paul Neilson: Under the connect and manage proposals that SSE supports—I believe that there is also support elsewhere for them—the users of the system would not necessarily need to understand the intricacies of what needs to be upgraded and when, when it is deferred or the ins and outs of the engineering; they would simply know that, once they had put their money down, the transmission licensees would optimise the system as their licence requires them to do and, in accordance with however they are incentivised, make their own judgments on the trade-off between investment and compensation of generators. Generators and users of the grid would see an infinite grid from their point of connection, and the optimisation and timing of investments would be a matter for the transmission licensees, the system operator, the owners and the regulator.

Under the current arrangements, the prospective users of the grid are subject not only to the uncertainties that are associated with when the triggers for such investment are satisfied but to all the other things all the way down the chain, down

the country and over the border into England, and they are sometimes on the receiving end of expressions of incredulity at the dependencies to which notionally small projects are subject. That is a feature of the arrangements. One might look over the fence at Dounreay and say, "As soon as the wire is up on the other side of the tower, I'll be home free," but that is not necessarily the case. It is not like that. That is the investment uncertainty.

Rob Gibson: Who should give you certainty?

Paul Neilson: Under the current mechanisms, our licence includes arrangements on the volumes of generation that will trigger and justify investment. We are currently in discussions about how they can be modified so that the transmission owners are able to apply greater judgment and can potentially be incentivised to progress the upgrades ahead of when they might be required. However, I am not sure how that will shake out.

Rob Gibson: Perhaps Alison Kay ought to say something about that, taking the example of the Dounreay to Beauly line, which is one of our national planning framework priorities. When will National Grid be able to tell us about that?

Alison Kay: All the studies that we have done on achieving the 2020 renewables target with everything that we know is in the background have provided absolute certainty that the Beauly to Denny line is a prerequisite to achieving the target. That is very much within the domain of SSE and SP and, as such, the signal for investment is up to them. However, having worked hard with the Scottish companies over the past year or so, we know that the Beauly to Denny line is needed in all circumstances together with much more reinforcement.

Rob Gibson: We are well aware of that and know where the planning is at. In the meantime, upgrades to the existing lines need to take place in order to feed into the Beauly to Denny line. We are talking about the one to the north of that. When will you be in a position to tell the public and the companies when that work will go ahead, given that we know the commitments for up to 2018 for electricity from the far north to the Beauly to Denny line? Is that not the kind of thing that we can know clearly? I am just baffled at the moment about where it falls.

Jason Ormiston: I understand from Scottish and Southern Energy that some of the preparatory work for the Beauly to Dounreay line is already under way. That work has been started in anticipation of the Beauly to Denny line being granted consent and being built. There is no point in putting the extra wires on the Beauly to Dounreay line unless the Beauly to Denny line is constructed. To answer the question when the Beauly to Dounreay line will be built, we need to know when the Beauly to Denny line will be built. When it is built, it will be necessary to make some fairly strong predictions about when other lines will be completed based on our knowledge of the planning system. The first thing that we need to sort out is the planning.

You asked about who will fund it. I am not sure—I ask Paul Neilson to nod his head—but I think that Ofgem has already approved funding for that line.

10:30

Paul Neilson: It has not done so directly, but it has approved the advance engineering of the line, which is the facility that we are making use of.

Jason Ormiston: Ofgem approves the funding, and management of access to the line is the responsibility of National Grid and the transmission operators. That can be done in a fairly managed and measured way, which should provide some certainty. However, the planning system will give the strongest signal about when the line will be completed and when people will be able to connect to it.

Rob Gibson: Someone said earlier—I do not know who it was—that if the planners knew that there was a commitment in our structures to progressing projects, it would be easier for them to assess whether they could give them the go-ahead. You have said that there is a planning problem, but it seems to me that there is another problem. The structure that you are talking about simply does not send a clear signal to the planners.

Jason Ormiston: The second national planning framework gives a pretty strong signal to the planners that the line will be reinforced. It is discussed in some detail in that framework.

Lewis Macdonald (Aberdeen Central) (Lab): I want to ask a question on that subject before I come to transmission charging. In his introductory remarks, Jason Ormiston said that the expectation was that the Beauly to Denny line would be approved last year. That clearly did not happen. When will a critical point be reached at which failure to approve the line will add extra delays not only for the additional lines that we have talked about but for direct access to that part of the grid?

Jason Ormiston: I will clarify what I said. It was expected that projects would be able to connect to the upgraded Beauly to Denny line in December 2008. We expect the Scottish ministers to take a decision on the line this year—I hope that a decision will be taken in the first half of the year. That could allow Scottish and Southern Energy to start building probably in the early part of next year, so the line would be commissioned in 2013.

If there is further delay, we foresee a hiatus in capital investment in renewable and other generation in the north of Scotland. We are talking about £1.5 billion of capital investment being delayed as a result of a delayed decision.

Lewis Macdonald: Would there be a month-for-month delay? In other words, if ministers delayed a decision until Christmas, would there be a six-month delay down the line for additional—

Jason Ormiston: This is meat and potatoes for Paul Neilson. People would have to wait until the warmer summer months before they started to do some of the work. However, Paul Neilson will be able to give chapter and verse on that.

Paul Neilson: The current situation is that if we can get on the ground by June this year, October 2012 is achievable for the commissioning of the Beauly to Denny line. In order to be on the ground in June, any planning conditions associated with a consent that may have come forward in March, for the sake of argument, will need to have been purified. I do not mean to be facetious, but let us say—again for the sake of argument—that consent was given for what was applied for, but no shovels could be used. Fulfilling that planning condition would be very difficult. Although consent had been granted, that would not necessarily enable people to get on the ground in June 2009, and if a window was missed then, a whole cycle would be missed thereafter for commencing works in the next outage season.

Lewis Macdonald: So a decision must be made early enough this year to allow work to be started this year, or there will be a year's delay in completing the work and connecting the projects.

Paul Neilson: Exactly.

Lewis Macdonald: That is quite a significant focus for ministers in thinking about their priorities.

Paul Neilson: There are other projects—there is the work on a substation at Knocknagael outside Inverness and on the Beauly to Dounreay circuit. We are scheduling and planning our work to make best use of the intervening time if there are delays in the completion of the Beauly to Denny line so that they do not have a knock-on effect. We want to infill as we go, do as much as we possibly can and ensure that nobody is sitting on their hands. However, there are funding issues associated with doing that and second-guessing the outcome of the consent process.

Lewis Macdonald: That is helpful.

I want to move on to another issue.

Dave Thompson (Highlands and Islands) (SNP): I would like to follow up briefly on what has been said.

The Convener: You must be brief, as we have to cover a number of other issues. We have spent some time on the issue that we are discussing.

Dave Thompson: I will be brief.

Paul Neilson says that works are being programmed so that other things that will connect into the Beauly to Denny line can be picked up on. Will that allow you to recoup the whole 12 months of potential delays or just part of that period?

Paul Neilson: It is difficult to say. We are looking to make the best use of all the time that we have. Resource is a big constraint in terms of the number of people we can have on the ground doing stuff, as is the extent to which we can compromise the system by removing portions of it to do the work that we need to do. When we are, for example, reconductoring routes, we can compromise the system only to a certain degree without compromising its security. There are limits to what we can do, and we need to make best use of the time that we have so that we can continue the reinforcement of the north of Scotland transmission ring through the Beauly to Denny line. That is what the islands and circuits from Dounreay will link into.

Dave Thompson: The optimum outcome would be to get permission in time to allow you to start this June.

Paul Neilson: Yes.

Lewis Macdonald: A lot has been said about transmission charging today and in the submissions that we have read. Perhaps the only group that has put a number on the cost to Scottish consumers of a change to a postage-stamp system is E.ON. It argues that the existence of differential charging between different regions of Great Britain means that generators in the north of Scotland pay more but consumers in Scotland pay less and estimates that Scottish consumers would pay £56 million more in electricity costs if there were a transmission-charging system that was based on the Scottish Government's proposal.

Does the panel think that the proposal would have a directly consequent cost to Scottish consumers? If so, is £56 million a reasonable ballpark figure?

Alex Mackinnon: The proposal that we agreed with the Scottish Government, SSE and Scottish Renewables is to change the methodology for generators only, and to leave the methodology for consumers the way it is. There would be no impact on Scottish consumers whatsoever. The impact would be that southern generators would pay more and northern generators would pay less. However, all generators would pay the same amount for accessing the GB transmission network.

In many major European countries, generators do not pay at all; in others, they pay very little. However, the majority of those countries use postage-stamp charging.

The problem is incentivising renewable and thermal generation in Scotland and the north, which is what our proposal is aimed at solving. The consumer side should be left as it is.

Lewis Macdonald: Alison Kay, could you tell us whether that system, which has one system for generators and one system for consumers, is manageable in relation to National Grid's licence obligations and the current statutory framework?

Alison Kay: We have to ensure that any change to the framework better meets the relevant objectives that are set out in the charging methodologies, two of which are to charge on a cost-reflective basis and to facilitate competition.

We have consulted on the proposal that was put forward by SSE, Scottish Power and the Government. However, we have not seen any evidence that the change better facilitates those objectives. We have gone back out to try to find such evidence but, unless we get evidence to prove that postage-stamp charging meets those objectives better than locational charging does, we cannot put forward the modification.

Lewis Macdonald: I understand that point, but am I right in thinking that there is nothing in principle that would prevent an alteration being made to the charging methodology for generators while retaining the current charging methodology for consumers.

Alison Kay: There is nothing in principle, subject to the cost-reflectivity objective being satisfied. As Alex MacKinnon said, generators in England and Wales will bear more of the charges. We agree with E.ON's figure of £56 million for the current subsidy, which becomes £101 million if we add on the £45 million hydro benefit. We would then see a bigger skew towards England and Wales. However, there is no reason in principle why consumers and generators would both be required to shift from one methodology to the other.

The Convener: I am slightly confused about what you said about cost reflectivity. I cannot work out how it can save National Grid money if English generators put electricity into the grid. In effect, that is what happens at the moment. If they are paid to put electricity into the grid, how is that cost reflective? There must be some cost to the transmission system when any generator puts stuff into the grid. It seems to me that there is a cross-subsidy from Scotland to England, not cost reflectivity.

Alison Kay: No. We divide the country into zones, and the further one is from the centres of demand that want to use the generation, the more one will pay, and therefore the bigger the costs will be. To incentivise generators to come into areas of high demand, we will pay them. As more generators come into those areas, the negativity will cease and the zones will go into positive charging, but that is the signal that will entice people to come into those areas.

The Convener: You call that an incentive. I call it a cross-subsidy.

Lewis, have you finished your questions?

Lewis Macdonald: I want to explore a couple of other angles, but I think Dave Thompson has a question about the matter that we have been discussing.

Dave Thompson: The point was made that generators in England and Wales end up paying a bit more and those in Scotland pay a bit less. I understand that the cost of the grid and so on is about 3 per cent at the moment. By how much would that change? Is it 0.1 per cent, or 0.001 per cent? How much more would generators in the south have to pay? It must be a tiny proportion of the 3 per cent.

Alison Kay: I do not know, but I can certainly find out. I do not know whether Alex MacKinnon knows the answer.

Alex MacKinnon: The locational charges do not recover much money. This year, the northern generators—that is, generators from Yorkshire northwards—are paying in just over £180 million, and the southern generators are being paid £120 million. Therefore, only £60 million is recovered. That compares with the total costs that the National Grid recovers, which are about £1.2 billion. That is one of our main arguments against the system. It does not collect significant costs. It is just a signal. We have always asked how it can be cost reflective for northern generators to pay southern generators.

Lewis Macdonald: Can I ask about the system balancing charge? Another point that has been put to us is that the system transmission charge is variable depending on location and that, in relative terms, it penalises Scottish producers. The system balancing charge is done on a postage-stamp basis and it brings significant benefits to Scottish producers. Do the witnesses agree with that analysis? Is it an accurate description, or is the balancing charge more of a mixed picture than that?

Alex MacKinnon: The balancing charge is paid equally by generators and suppliers across the whole country on the basis of the amount of generation. We think that that is the most sensible

approach. There will be times, such as now, when there is more generation in Scotland than can get through the interconnector to England and Wales. That is because the interconnector is being upgraded. It was out for 30 weeks last year and will be out for 30 weeks this year. Once it has been upgraded, and with further upgrades, there will be sufficient capacity for generation to flow down.

The charges will therefore change in the short term, but we certainly believe that the most sensible approach is to have the charges on a simple basis throughout the whole of GB. When someone is deciding whether to invest or is setting out on a 20-year project, the approach makes it so much clearer to them what the costs will be.

Lewis Macdonald: Is it logical for the balancing charge to be calculated on a different basis from the transmission charge? That appears to be the case at the moment. From National Grid's perspective, for example, does that make sense, or can it be argued that they should be calculated on the same basis?

Alison Kay: There is an argument that they should be calculated on the same basis. It does not seem to make much logical sense. I alert the committee to the fact that in the next few weeks we will be asked by Ofgem to examine the basis on which we charge for those balancing services. Locational balancing services charges probably work well. There was a very constrained system pre-BETTA—the British electricity trading and transmission arrangements—in 2005. We now need to consider locational charges to see whether they can be made on the right basis.

10:45

Jason Ormiston: One's view of this issue depends on where one thinks the illogicality lies. Scottish Renewables thinks that the illogicality lies in the transmission charging regime, which is volatile, unpredictable and excessive. We have talked about the costs, but the unpredictability and the volatility are real problems too. The further away someone is from what is called the centre of demand, the more volatile, unpredictable and excessive the charges are.

The centre of demand is round about Birmingham, but it was round about Birmingham even before we moved into a GB marketplace. It stayed in Birmingham; it did not shift north. We have almost institutionalised unpredictability and volatility into the system, and we have still not had an answer from Ofgem or National Grid on how we can respond to these problems, which are having a significant effect on investment decisions.

Lewis Macdonald: I would be interested in hearing the witnesses' views on an issue that Alex MacKinnon highlighted from Scottish Power's perspective. An argument for changing the transmission charging regime—and one that Jason Ormiston has made very clearly in the past—is that incentives and disincentives for the locations of power stations are not particularly relevant to renewables generators, which are located where the resource is. You cannot choose to build them somewhere else. However, that clearly does not apply to thermal stations. Is there a difficulty in arguing for a change that covers thermal as well as renewables? If the purpose of the existing system is to incentivise the location of thermal stations close to market, is that issue separate from the issue of the connection of renewables? Would it be too complicated to have different regimes?

Alex MacKinnon: Thermal stations must take environmental considerations into account as well. I know that committee members have visited Longannet power station and have been told about the plans for carbon capture and storage. That might be the best location for carbon capture and storage in the UK, to link into the North Sea, but the charging regime might be discriminatory and might favour locating carbon capture and storage in the south of England.

Because environmental concerns are important for thermal as well, any change should be for both thermal and renewables.

Alison Kay: Under the current regime, we would have difficulty in charging differently for thermal generators and renewables generators. However, the Government already has the power to put in a different charging regime for renewables. It has had that power for three or four years, but it has not chosen to exercise it. The Government could do so, if it really believed that what is inhibiting renewables from coming into the system is the regime of transmission charging. National Grid sees no evidence that the regime is preventing renewables from coming into the system. On the contrary, a huge queue is waiting to connect but is caught up in the planning regime. I reiterate that point, and stress that the Government already has powers.

Lewis Macdonald: That is an important point. Does any witness know of a project that has not proceeded because of the transmission charging regime?

Jason Ormiston: Our members have told us privately—I am afraid that I cannot give the details—that some good projects have not got off the drawing board. The economic case has not been made, because of the high cost of transmission. In some cases, those costs can represent as much as 25 per cent of the annual turnover.

Lewis Macdonald: I understand, but why can you not tell us about the projects?

Jason Ormiston: It is private and confidential business information that the developers would not want to divulge. Because of the competitive nature of the business, they would not want to talk publicly about the projects.

Lewis Macdonald: Given Alison Kay's point, it might help the debate if developers of such projects were able to tell us about them.

Jason Ormiston: I sympathise with that point.

Alex MacKinnon: We have invested more than £200 million at Longannet power station in fitting flue gas desulphurisation. Other investment is required there, but it has been hindered by transmission charges.

Audrey MacIver: We might not have a specific case of a project not proceeding because of transmission charges, but I emphasise that they are another factor that creates uncertainty. In the current economic climate, people are a bit more careful about what projects to invest in, and the uncertainty factor could be the tipping point for whether a project is progressed. We are trying to avoid that. The powers to which Alison Kay referred could cap charges for island areas; the UK Government has consulted on that for some time, but we still do not have a definitive view on it. The fact that there is such a measure indicates that the current regime is not appropriate for renewables. Enforcing a cap could give some if not full certainty, but we have not had a UK Government decision yet on whether that measure will be implemented in island areas.

Marilyn Livingstone (Kirkcaldy) (Lab): Witnesses have told us, today and in previous sessions, about the huge scale of investment that will be required for conventional energy and offshore wind and marine energy. Given the concerns about security of supply and declining gas supplies, what is your view of the impact of the current economic climate? Will it have an impact on the infrastructure investment that is needed?

Alison Kay: It certainly does not help, but we are committed to going ahead with the Scottish transmission owners and getting the infrastructure built. In my opening remarks, I spoke about strategic investment and investing ahead of a signal. The economic climate will possibly come into play when we consider, with Scottish transmission owners, building in advance of the signal because we need to be confident that people will come forward. Before we strategically invest, we need to know with some certainty that renewable and other types of generators who want to connect to the system will appear. So, the economic climate does not have a direct effect on transmission owners' ability to upgrade and build new lines, but we have to look into the background when making decisions to see what will happen to the generator population.

Jason Ormiston: The renewables industry is certainly not immune to the current economic situation. From the generation side, the issue is who builds a project. I could be challenged on this, but I would argue that utilities may find it easier to raise finance for their projects. Independent developers or developers who are not part of the utility network have a little more difficulty, not in creating a viable project, but in putting together the consortia of finance that are required to progress a project. That situation is not a show-stopper for us at present, but it means that it takes longer to get closure on finance.

Paul Neilson: Let us consider the example of a transmission investment of £100 million. The competitive procurement process requires us to invite tenders from across Europe, so we do that and establish that the investment will cost £100 million and that there are risks associated with managing the environmental impact, the holes in the ground and so on. The cost as seen by the users of the transmission system is the risk that the transmission investor attaches to the revenue associated with making the £100 million. So, his perception of how risky the revenue stream is that covers him for the £100 million investment dictates the generality of users' perception of how expensive the transmission is.

As has been observed, transmission accounts for about 3 per cent of domestic bills. Interestingly, that suggests that, for an increase of 3 per cent, we could have two grids; that is just an observation on scale. The key issue is the risk attached to the investment of £100 million. The transmission owner must do a lot of second-guessing and ask himself how many of the projects in the queue will really happen. Those projects are in the queue only because they have been spooked into ensuring that they get a ticket from the deli counter. That ticket does not tell them that they will get on to the system when they want to. The transmission investor who is considering whether to string a second wire from Dounreay to Beauly must pick winners from the list before deciding how much to attach to his investment. On the other side, generation investors are trying to second-guess what will be there and how soon they will be able to get on.

The pragmatic solution that SSE advocates is the connect and manage approach. At a stroke, that would reduce hugely the uncertainty on both sides and provide an investable climate for transmission and a yet more investable, bankable climate for the renewable generators that are seeking to use the system.

Alex MacKinnon: At the moment there is a shortage of international capital, which is impacting on our grid side and on our generation side. I hope that that situation will not continue for many years, but it is inevitable.

Marilyn Livingstone: Basically, Paul Neilson is saying that we should move to a connect and manage approach.

Paul Neilson: SSE's position is that connect and manage would reduce, manage and ameliorate a lot of the frustration that Mr Gibson expressed about people not knowing whether they will be able to connect to the system.

The Convener: What do National Grid and Scottish Power think about the connect and manage approach?

Alison Kay: It is included in one of the amendments that have gone to Ofgem for determination under the transmission access mechanism. There is an approach called—not very helpfully—alternative connect and manage, which allows people to come on to the system by a defined date and addresses the issue of certainty that Paul Neilson raised. We need to balance that with the cost to consumers of allowing everyone to come on to the system whenever they want and not having the necessary infrastructure in place to do that. We believe that some form of connect and manage is appropriate, but there needs to be targeting of costs back to generators if they come on early and cause constraints. The alternative connect and manage approach that we have proposed is now before Ofgem for determination, along with a suite of other modifications.

Alex MacKinnon: In general, we support connect and manage, but we are concerned that developers will be discouraged by the costs that will be incurred under some of the options that are being considered. Under some options, the charge of connecting will be so high that developers will be put off.

Jason Ormiston: Members will not be surprised to hear that generators would like to have the certainty that connect and manage brings. It allows them to get projects on to the wires when they need to, not when other people are ready to connect them.

Marilyn Livingstone: I will move on to price differentials between different payment schemes. There is a move towards social tariffs, but the evidence that we have received and anecdotal evidence from our constituencies suggests that the poorest people—those who are fuel poor—pay more, especially through prepayment metering. What is the impact of price differentials on the fuel poor?

11:00

Alex MacKinnon: My side of the business does not cover that topic, I am afraid. I gather that Mr Paterson appeared before the committee to talk about that.

Paul Neilson: I would have to take the question to other colleagues in the group, I am afraid. I could certainly send you our position in writing, if that would be useful.

Marilyn Livingstone: So no one on the panel can give us any information on that question?

Jason Ormiston: I am afraid that, while Scottish Renewables is interested in the area, we do not work in it, so I am not qualified to talk about it.

The Convener: We will follow the point up with Ofgem when it comes before the committee shortly.

Audrey MacIver: I am no expert in the area, but our fuel poverty report was submitted in earlier written evidence. It looks at renewables and fuel poverty, and makes a comparison across European Union and GB countries. Highlands and Island Enterprise and the local authorities commissioned the report in early 2008. We could resubmit that, although it might be slightly dated now. It looked at whether there is a correlation between the fuel poor and high levels of renewables penetration and concluded that there is none.

Christopher Harvie (Mid Scotland and Fife) (SNP): I was going to ask about distributing a decentralised power supply.

When I worked for the Open University in Buckinghamshire in the early 1970s, we still had the remains of a gasworks in our village. People used to say that you could calculate the village's energy demand by looking at the gas cylinder when everyone switched on their gas jets for their Sunday lunch. You could see it going down as the gas was used.

I am a primitive in such matters. I went from that little society to the town of Tübingen in Germany, which is a university city about the size of Perth. In 1979, when I went there, we imported about 95 per cent of our electricity from the grid, although we had a couple of hydroelectric stations and one or two factories that supplied a bit of heating to the areas around them. We now import 73 per cent from the grid because the Stadtwerk in Tübingen combines power supply and utilisation by setting up insulation systems and lowering energy demand by using low-energy bulbs and things like that. Of course, the setting up of combined-cycle power stations, which are up to 90 per cent efficient, that also drive the heating systems, has, along with pump storage on the hydroelectric schemes, managed to reduce demand while the

city is, in comparison with Scotland, still a considerable manufacturing centre.

In Germany, there is great resistance to notions of a commercialised grid supply and the like, and to EU regulations that see that as the necessary way forward. I am struck that, when we are trying to apply new forms of generation and local transmission, we always go into the notion of a large-scale transmission system. Ten years ago, I remember being told of the marvels of Enron and transmissions trading in Europe and America, and look what happened to that.

I would like some examples of means of avoiding transmission, and of locating electricity and other power supplies within an area where they can be used in many ways. Our university heating system is now a 90 per cent efficient generation system—although it is gas, which means there will be certain limitations on future performance. Nevertheless, it compares extremely well with a 35 per cent efficient thermal system such as Longannet.

Most investment in the 1960s and 1970s was in colossal nuclear thermal power stations that were situated well away from their customers and that lost into the atmosphere two thirds of the energy they generated. It strikes me that, under this rubric of distributed or decentralised electricity supply, we ought seriously to consider alternatives to that, whether they be the alternative of insulation or the alternative of multiple use of power stations. Are any of you doing that?

Alex MacKinnon: Distributed generation and energy efficiency are very important, but if we have renewable technology and renewable sources that are distant from the centres of demand, we will need a transmission network. Also, if we opt for things such as clean coal, we are talking about large plant and will need a transmission network. However, yes, we agree that the requirement for that could be minimised through maximising what exists locally and efficient use of the energy that is produced, however it is produced. Those issues are being addressed but, even with those things, we will still need an expanded transmission network.

Alison Kay: I agree with everything Alex MacKinnon said. We are looking hard at the 2020 targets. Bolstering the transmission system is only part of the solution, although it is what we are focusing on today. All the things that you have talked about—combined heat and power, all forms of distributed generation and the provision of incentives to encourage people to insulate their homes—are absolutely key if we are to reach the 2020 targets. We are looking at that side of the equation. The key is to ensure that the right incentives are in place to encourage people to do those things. They may not work across the board, but if we are to reach the 2020 targets we need a bolstered transmission system, renewables, non-renewable energy and distributed generation.

Christopher Harvie: What if the low-consumption alternatives are such that the global demand for transmission systems declines? Can you then justify investment in those systems? It strikes me that there is a paradox at the centre of this. If we do all the insulation, low-consumption light bulbs and so on, there will not be a rising demand to cater for. You are shaking your head, Lewis. Are you privy to information that I do not have?

Lewis Macdonald: I would like to hear what the witnesses think.

Alison Kay: I do not think that any of the scenarios that we have modelled have shown demand seriously dropping off. As time goes on and an electric vehicle fleet emerges, people will have to charge electric vehicles and what is netted off will come back on through the charging of those vehicles. We can see a world in which there is a plateauing of demand, but I do not see it decreasing. Certainly, nothing that we have modelled shows a decreasing need for the transmission system even if we encourage the growth of much more decentralised generation—which, I hasten to add, we are doing.

Jason Ormiston: It is true to say that it is not a case of either/or in relation to transmission and distribution. I am concerned that we pay too much attention to the transmission question and not enough attention to the distribution issues. There are alternative scenarios to those that are being put forward in terms of the European supergrid. I am not arguing against the European supergrid, but we should highlight the fact that there are alternative scenarios based on distributed generation with interconnection at a lower level than perhaps has been envisaged by others. Ofgem commissioned a study entitled “Long Term Electricity Network Scenarios (LENS) Project”. The study was conducted by Strathclyde University and considered three scenarios, one of which was what the grid would look like if we focused on distribution. It would be worth looking at that.

You asked whether there are any examples of the German model in Scotland. With regard to large-scale heat recovery from power stations, there are no such examples in Scotland, which is a shame—we should be doing more.

Christopher Harvie: Not even in Peterhead, where there is a power station bang in the middle of a fairly large town.

Jason Ormiston: Indeed. However, we should recognise examples of smaller-scale distribution networks such as the electrification of the Isle of

Eigg, which was supported by Highlands and Islands Enterprise. The island has its own source of electricity, which was up and running last year, and it does not have to ship in diesel. Unst in Shetland has gone down a similar route using the hydrogen economy.

Those communities cannot connect to the main grid, so the most economic response is for them to build their own grid and systems. We can replicate that in an urban area, in the central belt or in other areas—it is done elsewhere—but it requires a shift in thinking and, as Alison Kay said, a shift in the incentive mechanisms that are in place.

Paul Neilson: I will provide Mr Harvie with some examples. Part of facilitating that type of embedded generation involves enabling the distribution systems to be operated to acknowledge the active components that are embedded within them. We are currently running a trial of an energy storage device, which is part of the smart grid concept, in the north-east of Scotland and Scottish Hydro Electric Power Distribution is closely examining the technologies, some of which are being trialled, that are associated with facilitating that type of active generation component within the distribution system. That can reduce the requirement for distribution reinforcement between the storage site and the transmission system.

Similarly, there is our Shetland link project, which is part of an overall Shetland solution. The Lerwick power station will not be there for ever—in fact, it will not last beyond 2015-16—but even with a subsea link to accommodate the proposed Viking wind farm, a power station will be required. We have had detailed discussions with Shetland Heat Energy and Power about the facilitation of supplementing its district heating scheme with a link. It is proposed that the mainland terminal of a high-voltage direct current subsea link from Shetland would be situated close to Black Hillock, adjacent to Keith. We have been investigating the possibility of using the waste heat from the cooling elements of that specialist equipment to heat the swimming pool, sports centre and schools in Keith. We are seeking to do everything in the most sustainable way we possibly can, using the technology to facilitate the maximisation of levels of embedded generation.

As Alison Kay said, there is, whatever we do, an inescapable requirement—given the scenarios that were being studied in the ENSG—to enhance the transmission network. Whichever way we slice it, more will need to be done with the network.

Audrey MacIver: It is worth highlighting the work of Community Energy Scotland—previously the Highlands and Islands Community Energy Company—in trying to encourage local generation, ownership and utilisation of power, which is important in terms of gaining general public acceptance for renewables and increasing local understanding and knowledge. HIE continues to work closely with Community Energy Scotland on that and on the projects in Shetland to which Jason Ormiston and Paul Neilson referred.

We do not underestimate the huge challenge that the targets that we are considering for renewable heat—going from 1 per cent to 10 or 11 per cent—present. That is as big a challenge as reaching the 50 per cent target for electricity from renewables. There remain some real challenges, but the issues are on everybody's radar.

11:15

Christopher Harvie: I will make a general, reflective, point. When one has been geared up to a system of large-scale power generation and the transmission networks to go with it, during a period of overall manufacturing rundown in the country, the chances of producing the local wee man in the overalls with a micrometer in one pocket and a file in the other—such men kept Clydeside industry going—at the density at which those men are present in a remaining big industrial area such as Baden-Württemberg, which has Daimler-Benz just up the road, are fairly low. Have we locked ourselves into a position in which we lack such local adaptability through trained manpower—or womanpower—and the like? Are we plugged into the technology that we have, although we feel that it will be extremely inefficient in the longer term? For instance, we have not constructed the passive houses that the Germans have, which require no heating. Our best housing achieves about grade C on the EU scale of thermal efficiency. The solution must embrace technology at that fairly intimate level, too.

The Convener: That was a statement as much as a question. Does anyone on the panel wish to add anything?

Jason Ormiston: I have told the committee before that we should not let up on energy efficiency and on building properly insulated houses so that we minimise, or even reduce to zero, heat requirements. That is vital for progress towards the 2020 target and the 2050 climate change target.

Rob Gibson: As Ofgem will speak to us next, it might be useful to consider now its comments that the renewables obligation scheme should not be banded by technology and that the subsidy should be inversely linked to wholesale electricity prices. What are your views on that and on the alternative of feed-in tariffs, which are widely used on the continent?

Jason Ormiston: The point is kind of academic; the renewables obligation exists and all the

investment decisions about renewables are being made now and are being based on what we understand the market for renewable electricity will be. A change in any system would create huge confusion, huge uncertainty and an investment hiatus that we can ill afford, given climate change targets.

While wholesale electricity prices are high, it might be thought that some renewables generators are doing nicely, but that is a snapshot. We do not know what electricity prices will be in the future. Most people might bet that they will remain reasonably high, but that will not necessarily be the case. Prices have been volatile and will—no doubt—be volatile in the future.

An interesting academic point has been raised, but it is not relevant to investment in the renewables industry.

Rob Gibson: Within renewables, there are marine renewables and onshore developments.

Jason Ormiston: Banding the renewables obligation is sensible. On any objective measure, costs are high for emerging technologies such as wave and tidal energy, so they deserve extra support. Several mechanisms, such as banding the renewables obligation or providing grant support, can be used to supply that support. The Scottish Government has had the marine supply obligation scheme. We must recognise that the costs of early technologies mean that additional support is required through a finance or grant support mechanism. Banding will provide that and we will make that work.

Audrey MacIver: We welcome the proposed banding of the renewables obligation to facilitate and accelerate the development of new technologies, particularly in marine energy. If banding were implemented, it would create certainty about income for the longer term. As Jason Ormiston said, now is not the time for a wholesale change to the process—we want to take renewables development forward.

Paul Neilson: I am sorry, but given where I sit in SSE—on the wire side of the business—the question is not on my subject. However, I can provide the committee with a written response from SSE on the issue.

Alex MacKinnon: We agree with the banding, particularly to encourage emerging marine and tidal technologies, and we are against a significant change in the funding mechanism for renewables. I agree with Jason Ormiston that that would discourage investment. Yes, plenty of projects are emerging, but we will need a lot more to achieve the targets for 2020 and beyond. A change at this stage would discourage investors.

Rob Gibson: Everyone is talking about stability, which is obviously better for the industry. However, could the issue be linked to the major argument about providing security of supply in the long term? That favours renewables, because there is widespread acceptance of renewables throughout the world. Once we get past the development stage of the marine technologies, they will provide a steady-state production system.

Alex MacKinnon: That is a fairly long way ahead. In Scotland, we have about 600MW of onshore wind capacity. Last week, when the temperature in Glasgow was about -3°C, the output that we were getting from onshore wind was 3MW. For a secure supply, we must have thermal back-up for the intermittent renewables technologies.

Rob Gibson: I was thinking about the other definition of security of supply. We have had the arguments about the mix of generation that is required; we will, no doubt, come back to that. I will leave the point just now, as it is probably a diversion.

Lewis Macdonald: I have a quick question for Paul Neilson, who said that, even with the Viking Energy project for 540MW of wind power in Shetland, there will still be a need to replace the thermal power station there. Why?

Paul Neilson: We have identified that the most economic solution for a cable link with Shetland is a single link. The economics do not justify 100 per cent redundancy; they point strongly to a single link being the optimum solution, so we are progressing on that basis. Inevitably, a single link will not always be available. It will be required to be out for maintenance and we have to assume that it will, at some point, be subject to a fault. In those circumstances, there must be a facility in place.

Lewis Macdonald: In essence, that is the same point that Alex MacKinnon made about security of supply.

Paul Neilson: It is about security of supply. We will find the optimal solution for the station, rather than have a lump of metal sitting there that is used only when the link is unavailable. It will be better if the station can pay its way as far as possible, hence the exploration of tie-ups with Shetland Heat Energy and Power Limited—the district heating scheme—and other appropriate sources of revenue to make the station as economic as possible.

Lewis Macdonald: One issue that has been raised in relation to energy efficiency measures is the potential for microgeneration of renewable energy to assist with that. This week, the Scottish Government has announced that it does not believe that it is in a position to introduce planning

changes to enable microgeneration of wind power or air-source heat pumps. Is that a justifiable delay in a planning decision?

Jason Ormiston: The previous Administration and the current one have for two years been working on general permitted development rights for microrenewables. It is unfortunate that air-source heat pumps and microgeneration by wind have not been included in the current list of permitted developments, while solar power, biomass flues and other technologies have. It is unfortunate that two technologies that are important to the Scottish economy have been left out—air-source heat pumps are also important to tackling fuel poverty—and that we will have to wait a year before the Scottish Government can gain confidence in the matter.

Lewis Macdonald: Is there anything else the Scottish Government should be doing to address fuel poverty and provide access to cheaper electricity for consumers?

Jason Ormiston: There is a link between fuel poverty and electricity, but the major link is between fuel poverty and heat. To pick up on Christopher Harvie's point about insulating, it is important that we have good-quality housing. Where there is a limit to what you can do by way of retrofitting existing housing stock, you might want to start thinking about using domestic-scale microgeneration to help tackle the problem.

Lewis Macdonald: Another issue that was raised when we discussed fuel poverty a couple of weeks ago was the carbon emissions reduction target scheme. The scheme operates Great Britain-wide, but Scotland appears to receive between 5 and 7 per cent of the expenditure, which is below what would be proportionate to our share of energy-inefficient housing stock. Should we consider regulatory changes that would make a difference to CERT and to the investment by the energy companies in improved insulation and measures to deal with inefficient homes?

Jason Ormiston: You will appreciate that our organisation looks at generation of energy. Energy efficiency is not our area of expertise. We understand the links between the two, but how CERT operates to support insulation is, perhaps, an issue to raise with others.

The Convener: One issue that arose when committee members visited Brussels in the past couple of days was the legislation that the European Union is considering on competition and potential unbundling within the electricity market. As we understand it, there is a difference of views between the Council of Ministers, which seems to be promoting a proposal that would protect the composition of Scottish Power and Scottish and Southern Energy, and the European Parliament, which seems to be promoting a proposal that would have implications for those organisations. Do the witnesses have any thoughts on what the implications could be for the future development of, and investment in, the transmission network in Scotland if the European Union adopted either of those two options in the next few months, which I think is the target?

Paul Neilson: My understanding of the third energy package is that it allows three alternatives for compliance. We are satisfied that it will allow for the current arrangements to continue as they are, with Scottish Hydro Electric Transmission Ltd, within Scottish and Southern Energy, being an authorised TSO—which, confusingly, stands for transmission system operator, even though in Great Britain the term "system operator" has a unique meaning. The issue is the clarification of the domestic processes by which the UK bodies support the authorisation of SHETL and, in Scottish Power's case, Scottish Power Transmission Ltd, in respect of the outcome of the third energy package. We do not expect that that will upset the apple cart. Our understanding is that the framework will enable us to continue on the current basis.

The Convener: My understanding is that what you have said reflects the view of the Council of Ministers, but that the European Parliament takes a different view. A decision on that is subject to further processes. There is some concern that if the European Parliament's will prevails, that will have an impact. If you are not in a position to talk about that at the moment, perhaps you could write to us.

Ms Wendy Alexander (Paisley North) (Lab): Obviously, a degree of conciliation and negotiation is going on at the moment. The European Parliament's position, as part of its commitment to energy liberalisation and the promotion of competition, is that it is good to separate generation from transmission. That is why it is committed to unbundling in principle. It goes without saying that Scottish Power and Scottish and Southern Energy would not favour that option. It will be interesting to hear Ofgem's view on that. Do Alison Kay and Jason Ormiston's organisations have a view on whether unbundling in the energy market is an appropriate way forward?

11:30

Alison Kay: We would favour an unbundled system. We have an unbundled system in England and Wales and we think that there are better incentives between generation and transmission if they are separate, as opposed to being in separate ownership under the same organisation. That said, the key issue is certainty. The committee has highlighted that there is a

difference of opinion between European ministers and the European Parliament. If we are to meet the 2020 targets, the last thing we want is a big structural issue hanging over the heads of transmission owners in Scotland. That is a key point, but you will not be surprised to hear me say that we probably favour the unbundled option.

Jason Ormiston: We need the system that promotes quickest investment in the transmission distribution networks. I do not see there being a significant issue on land, but offshore, where we have to connect an awful lot of generation around the British coast, the current system allows the people who own the generation to build and own their own wires back to the mainland. That approach has been challenged somewhat since the growth in interest in offshore wind in the past couple of years. A bit of a rethink is now going on about whether that is the most appropriate approach and whether we should look to more strategic and co-ordinated approaches. In those circumstances, we often look to utilities to take the lead. As long as they can do that in an efficient way and at the most appropriate cost, that is what we would be looking for. We must get those projects connected quickly. A discussion around unbundling is useful in respect of long-term strategic thinking, but it should not undermine the current investment plans of the transmission operators in the UK.

Alex MacKinnon: In 2001, under business separation, Scottish Power and Scottish and Southern Energy separated out their generation business from their transmission business. When BETTA came in in 2005, National Grid became the Great Britain system operator. The key to the European package is that it wants to ensure that the transmission owner is not expanding its system to benefit generation that is owned by the same organisation. I thought that we had persuaded Europe that the system in Scotland was as independent as the ones that it proposed under the title of independent system operator, because in Scotland investment in the transmission network goes through National Grid and through Ofgem, so other bodies approve the investment.

The way the market operates in Scotland means that a transmission owner could not favour the generation business that is owned by its parent company. I accept that the recent debate has been about whether the Scottish model is as independent as the others that have been put forward in the European package. We think that it is.

Lewis Macdonald: Audrey MacIver and the Highlands and Islands Enterprise submission mentioned the effects that code amendment proposal 167 will have on island communities and the whole Highlands and Islands—and, I suspect, the whole of the north of Scotland, including the north-east. The proposal would reduce the output of permitted projects that can access the grid from 10MW to close to 0MW, with consequent cost implications. Having heard the concerns that have been raised by HIE, I would like to hear National Grid's view before we ask the same question of Ofgem, which I am sure we will do in the course of the morning.

Alison Kay: The CAP 167 proposals have just gone to Ofgem for determination. There is an increasing issue to do with the impacts on the transmission system of the number of small-scale generation projects that are connecting at distribution level. It is for Ofgem to determine whether it thinks that has a significant effect. National Grid's view is that 10 10MW projects have as great an effect as one 100MW project. They pose as much of a problem and there currently seems to be a slightly arbitrary megawatt distinction. We would favour a system whereby we were notified when much smaller generation projects connect to the distribution system. I realise that there are contrary views and that there would be some up-front costs for the connecting generator. Nevertheless, we are seeing significant effects on the transmission system and we are anxious to have an industry-wide debate on how people think it should be taken forward.

Jason Ormiston: CAP 167 will affect all generators in the UK, so it is an issue for the whole of Scotland. We have been involved in trying to find a solution whereby there is an assessment of the proportionate costs of the impact. Unfortunately, the illogical conclusion of the arguments is that a 1KW micro wind turbine on a house may be assessed as having an impact on the transmission network. If you follow the argument through to its illogical conclusion, that is what you will find. The unintended consequence is that if there were 100,000 micro wind turbines operating in Scotland, that would provide 100MW. That is the kind of situation that we are in, so we must be sensible and proportionate in our approach to understanding the issue.

The issue has unfortunately been kicked off by National Grid. We do not think that there is a problem—we think it has been blown out of proportion and hope that Ofgem agrees with us. We are also concerned that the issue should be held over and not dealt with by Ofgem until the transmission access review, which is considering many such issues, is concluded. We will write to Ofgem, asking it to do that.

Paul Neilson: I echo Jason Ormiston's point that it is an inappropriate distraction at the moment and should be held over until the transmission access review has run its course.

The underlying issue that it highlights is the fact that National Grid behaves as a commercial organisation, which is entirely understandable on the basis of the way in which it is incentivised. It currently has a system operator function, which does not own transmission in the north of Scotland. It is concerned about the level of congestion occurring on the system as a consequence of generation connecting and the impacts of generation being on the system. It responds in accordance with the ways in which it is incentivised.

We believe that there is scope to consider the incentivisation of the system operator on a broader basis instead of chasing it to its natural conclusion, which would be not to connect anything else. That is not what National Grid is about, but that is where the incentive currently drives it. It has had its time, has served its purpose and has been useful, but incentivisation on that blunt basis is now a bit long in the tooth. There is scope to consider a wider basis of incentivisation, which would potentially include the amount of generation that is being facilitated and connected. Perhaps there is a win in there for everybody.

The Convener: That concludes our questions for the panel. It has been a useful session. I thank you all very much for your frank answers to our, hopefully, equally frank questions. You have given us some interesting food for thought prior to our taking evidence from Ofgem.

I suspend the meeting until a quarter to 12, when we will start promptly.

11:38

Meeting suspended.

11:47

On resuming—

The Convener: Our second panel—if one person can be said to be a panel—is Steve Smith, from Ofgem. I invite him to make some opening remarks, after which members will ask questions.

Steve Smith (Office of Gas and Electricity Markets): Thank you for inviting me to give evidence this morning. I am the managing director of networks at Ofgem and an executive member of the Gas and Electricity Markets Authority, which is the statutory body that takes the decisions, Ofgem being the administrative and office function. My role covers all the networks in Great Britain—gas and electricity, transmission and distribution—and I am happy to speak on those areas. Prior to becoming the managing director of networks, I was the managing director of markets for four years, and you will be pleased to hear that I am happy to talk across Ofgem's portfolio. Members of the previous panel were unable to give you answers to some of your questions because they are not experts. I hope that I can furnish you with some answers from Ofgem's perspective.

A lot of our discussion will be about transmission charging, and I will pick up on some of the things that are going on in networks more widely. Jason Ormiston referred earlier to our LENS study on long-term electricity network scenarios, and I believe that you have taken evidence from the people who did that work for us. I urge you to read that study. It is an exercise like those that companies such as Shell undertake. Because the future is uncertain, it considers some plausible future scenarios to enable us to understand what the networks that we will need in Great Britain in 30 or 40 years' time might look like. Given that information, we can then roll back in time and think about what we could do today that would look positively daft and close off options, as well as what we could do at relatively low cost that would keep options open.

The most interesting thing—this reflects some of the discussion this morning—is that, if we were to ask people in the industry what such an exercise 10 or 15 years ago would have produced, they would say that the scenarios would all have been about how big the network should be, which would largely have been driven by views on economic growth. The scenarios would have suggested that we needed a transmission and distribution system that was either much bigger or a little bit bigger.

However, the academics suggested something very different. Of the five scenarios, at one extreme was the microgrids scenario, under which new technologies would come through and people would be serious about tackling climate change so we would have an awful lot more local generation, such as local heat sources and domestic fuel cells. In that world, not much would be needed in the way of a transmission and distribution system. The scenario at the other extreme assumed that technologies such as carbon capture and storage, large-scale offshore renewables and electric vehicles would come to the fore. For that scenario, we might need a transmission and distribution system that was two or three times the size of the current one.

The challenge that Ofgem faces as the regulator is that, when the brightest minds in the country consider what might be plausible scenarios based on existing technologies, they come up with fundamentally different views about the network. Through our regulatory arrangements, we need to try to ensure that we regulate in a flexible way as new information comes to light, so that we do not end up putting an awful lot of money into networks that, in 10 or 15 years' time, will make people ask why we spent £10 billion or £15 billion on

something that is not needed. By the same token, we need to deal with the current problem, which is that we clearly do not have a transmission network that is big enough to accommodate what people want to do today. That is the nature of our challenge.

We have a number of ways in which we are trying to tackle that challenge. First, we have initiated a fundamental review of how we regulate networks. The RPI-X@20 review—the retail prices index minus X at 20 review—acknowledges that although our way of doing things for the past 20 years has served us pretty well, climate change changes the nature of the debate. That root-and-branch review is considering whether there are better ways of regulating networks.

Secondly—this is closer to the issues that we are discussing today—we are working on a transmission access review, which is looking at transmission investment incentives. That is taking up a huge amount of our time at the moment.

Finally—if I may warm to the theme of distribution—we are currently in the middle of a distribution price control review. One of the biggest themes in that review is how we can get the distribution companies to be more innovative in thinking about how they might encourage and facilitate new technologies rather than simply continuing as they have done for the past 20 or 30 years, which is—to put it crudely—to predict load growth and then to build based on existing technologies.

I have spoken for probably slightly longer than I intended, but I wanted in my introduction to give a flavour of the fact that we are dealing with a wider canvas. We are certainly in the business of thinking about what those changes mean for us and the way in which we go about doing our job.

The Convener: Thank you. That leads me into my initial question. You mentioned the need for Ofgem to look at how it operates as a regulator. Does the current statutory remit give Ofgem sufficient flexibility to balance the needs of today's energy industry, which are perhaps different from those that applied when Ofgem was originally set up, when the big issues were competition, pricing and regulation? Does Ofgem's remit give it enough flexibility to consider issues such as sustainable development, renewables and how to tackle fuel poverty and encourage energy efficiency? Does the UK Government need to review the remit to update it to deal with current and future needs?

Steve Smith: I will try to answer that, but I will start with the obvious premise—this might be a slightly boring answer—that, as a creature of statute, we are slightly uncomfortable commenting on what our remit should be. We very much take the view that that is for Parliament to decide.

It is worth noting that Parliament has made potentially significant changes to our remit, which have recently been enacted. Our primary duty now states explicitly that our duty is to protect the interests of customers, but it is now crystal clear that that means both present and future customers. One criticism of the previous remit was that it was perhaps too biased towards worrying about today's customers and costs. If we are to be concerned about the future and climate change, we need to balance the interests of future consumers. That is our new primary duty, as of about a week ago, when the legislation was brought into force.

Sitting alongside the primary duty are a bunch of secondary duties. Our sustainable development duty, which was introduced through another piece of legislation about three or four years ago, has now been promoted to the top of the hierarchy so that it sits beneath the primary duty.

Therefore, to answer the question, our remit has changed, but it changed only a week ago so there is a sense in which people will need to consider what impact that will have on the way that we act.

I do not see any fundamental conflicts in what we do at the moment. Your question might point towards the fact that our remit allows us to do some things and not others; I am sure that I will come on to that when I am asked about fuel poverty. Whether that is right is fundamentally a political question. If you would like Ofgem to have a bigger role on fuel poverty, changes would need to be made. I can explain what our current statutory remit allows us to do and what it does not allow us to do. On the renewables front, the biggest part of my role is probably to do with solving the present massive problems of grid access. That is predominantly a renewables issue, but it is also relevant to conventional energy and security of supply. I do not perceive any conflicts in or difficulties with our statutory framework that will stop us doing that work.

Lewis Macdonald: I raised with the previous panel the impact on customers of a change to the transmission charging regime. Previous witnesses had said that there would be a cost to customers in Scotland, but this morning's panel was clear that the proposed changes were focused on generators only and would not have a direct impact on customers. National Grid confirmed that, from its point of view, that was a perfectly reasonable approach to take. Is that also Ofgem's view? Do you believe that your responsibility to protect customer interests would be equally well delivered under alternative transmission charging schemes, or is cost reflectivity a customer-based priority?

Steve Smith: Before I answer that, I would like to establish the facts on transmission charging, because I think that there was confusion on the matter among some of the earlier witnesses.

The conventional wisdom is that Scottish generators pay about £150 million per annum to access the system and generators in England and Wales pay about £200 million. In other words, Scottish generators pay roughly 40 per cent and generators in England and Wales pay roughly 60 per cent. That seems manifestly unfair once it is pointed out that Scottish generation accounts for only 12 per cent of total British generation. In addition, renewables generators cannot even get on the system. The conclusion is that the current arrangements are unfair to Scotland and to renewables, and the fact that the majority of the renewables projects that are waiting in the queue to be connected to the grid are in Scotland only reinforces that sense of unfairness to Scotland.

However, that fails to take account of the fact that those figures focus on only one part of transmission charging, which is the cost of the infrastructure. It ignores the costs of operating the system, which include the cost of paying generators when there are transmission constraints. If we bring that in, the picture looks very different. Scottish generators pay about £30 million per annum, because they get back most of the £150 million in constraint payments when they cannot generate.

That means that generators in England and Wales, who pay a proportion of those constraint costs, actually pay £350 million, which is nearly 10 times as much as Scottish generators. Customers in England and Wales pay £1.1 billion, which is three times as much as generators in England and Wales, and Scottish customers pay £50 million, so I put it to the committee that if the current arrangements are unfair to anyone, they are unfair to customers—I do not distinguish between customers in England and Wales and Scottish customers—because they pick up the lion's share of the total cost of transmission. When one examines the situation properly and takes account of all the flows, it is difficult to conclude that there is a problem with the amount that Scottish generators pay.

To work out what Scottish generators should pay, we must add to the cost of the Scottish transmission system—in other words, the cost of running the two Scottish transmission companies for a year—the cost of the constraint payments that we have to make to Scottish generators that cannot generate on the system and a reasonable share of the cost of the system in England and Wales, to reflect the fact that, because Scotland is a significant exporter of energy, Scottish generators make use of that system. One can argue over the numbers, but one can quite easily arrive at a figure of anywhere between £250 million and £300 million as the annual cost. Given that generators and customers in Scotland contribute only £80 million at the moment, I am afraid that my answer—which I realise will not be palatable—is that, if anything, the issue is whether Scottish generators contribute enough.

To answer directly the question that I was asked, it is pretty disingenuous of Scottish Power to suggest that it would be a nice idea to have postalised charging on the generation side but not on the customer side. I doubt that we could turn round and say that there are good arguments to postalise charges and share generation across Great Britain, but that—for artificial reasons—we are not going to do that on the customer side. I cannot understand why I should say that customers in Scotland or the north of England should benefit when customers in London pay five or 10 times more. It would be technically feasible to do so, but given equity and our primary duty to protect the interests of all customers, present and future, it would be quite difficult. If we were to move to postalised charging, there would have to be a pretty strong argument about why that would make sense for generation but not for customers. It is the flip-side of the same coin.

12:00

Lewis Macdonald: Clearly, the challenges in generation and customer supply are a little bit different, in the sense that Government policy, and Ofgem's interpretation of it, on the generation side will seek to promote new forms of renewable generation where the location might be a result of the available resource rather than the generator's choice. Customer issues are slightly different, and I take the point about equity, but presumably lower customer charges would bring an economic benefit to the northern half of Great Britain, for example, which you would want to sustain.

Is there an argument that renewables could or should be treated differently from thermal power stations because of your sustainable development duty, as you describe it, and your duty to protect the needs of future customers?

Steve Smith: That is a legitimate question. We must remember that, at the moment, we have subsidy support mechanisms for renewables. The question is where you want to pay them, because you already have to support them to get on the system.

One school of thought is that transmission charges should be used because that would be a legitimate way of providing renewables with further financial support, and postalising would be a way of doing that. Another route would be to keep

transmission charges broadly cost reflective and, if necessary, adjust the subsidy mechanism for those renewables that need to deploy in areas in which transmission charges will be high.

I understand the argument that Scotland has a lot of renewable resources, but we have to be slightly careful with that because there are also renewable resources, particularly offshore, in the south-west. There is also talk of the London array and so on, and all those projects would clearly benefit from lower transmission charges.

The simple answer is that there is a debate to be had. Going back to some of the evidence that the committee heard earlier, although I hear what Scottish Renewables says about the private, competitive developers that cannot produce numbers to show that transmission charging is a problem, I find that a little bit difficult to believe. Those companies are subsidised—customers pay for them to get on the system. For the past four to five years, we have consistently said that if someone has a problem with transmission charging that is going to stop a renewables project, they should talk to us and share their numbers and we will look at the situation. So far, no one has come forward. They can come to us confidentially; we have such discussions with companies all the time.

Reference was made to the Government's powers to cap transmission charging. The Government hired two different sets of consultants to look at the economics under the existing renewables support mechanism for wind resource in the most extreme parts of the system that have the highest transmission charges. It concluded that return rates of 15 to 20 per cent could still be earned on investments in those areas.

The question is an empirical one, and the challenge is for renewables developers to come forward and tell us when transmission charging is a problem. Then there is the question whether to use the subsidy mechanism or transmission charging to fix that problem.

Lewis Macdonald: You referred to balancing charges that provide constraint benefits for Scottish generators. This morning, we heard from other witnesses that you are asking National Grid to look at the basis for that approach. At the moment, it is done on a postalisation basis. What is your view of the consistency between the current system—however you might envisage it changing—and the current arrangements for the transmission charging system?

Steve Smith: The ghost at the table in this discussion is the customer interest; it was absent this morning, except when you tried to bring it up. Customers are paying for all this at the moment.

We must try to find a way of getting many more renewables on to the system much faster, without landing customers with a huge bill. The costs of constraints on the system have gone up in Scotland from £40 million two years ago to a forecast of close to £300 million next year. Ultimately, all those costs find their way to customers. In the current economic climate, with businesses struggling and domestic households facing job insecurity and struggling to pay their bills, we must find a way of supporting renewables that does not increase customers' bills. I take the point that transmission accounts for only 3 per cent of bills, but at the moment every percentage point on bills really matters to people—not just the fuel poor, but hard-pressed businesses and others.

We have asked National Grid to come up with a better way of looking at the total costs of running the system, to ensure that we do not do things that land all the problems at customers' doors. To put the issue in context, at the moment National Grid charges generators across the whole of Great Britain about £400 million per annum. However, immediately after selling those rights, it pays £350 million back to them because it cannot allow them to come on to the system at all times. If National Grid were a commercial business, it would go bust pretty quickly, as it has £1 billion of asset costs to cover each year. The inevitable conclusion to which that leads us is that generators—not just Scottish generators, but generators in England and Wales—must pay a bit more if they want to access the system, so that customers do not have to pick up a large bill.

Ms Alexander: I hope that the convener will indulge me by allowing me to pursue the numbers on this point. As the convener said, this week we were in Europe. In the European context, the first question is, who pays for transmission—both infrastructure and operating? What should be the split between consumers and operators?

Numbers are important, so I would like to revisit the many numbers that Steve Smith threw at us. I took it that the figure for access charges was £150 million from Scottish generators and £200 million from English and Welsh generators, implying a total of £350 million. However, those were the costs of infrastructure; we must also consider the costs of operating the system. What is the current figure for constraint payments?

Steve Smith: The constraint payments to Scottish generators take their net contribution down to £30 million.

Ms Alexander: I took that figure down. You gave the figure of £250 million for England and Wales.

Steve Smith: Yes. They pay £150 million in constraint costs.

Ms Alexander: So generators' contribution to the cost of the transmission is £350 million minus £380 million. The implication of that is that there is no net contribution from the generators. Is that correct?

Steve Smith: Yes, in essence.

Ms Alexander: So generators pay in £350 million and get out £380 million. I accept that those figures will change in the future, but essentially there is no net contribution. However, you mentioned that consumers pay £1.5 billion in England and Wales and £50 million in Scotland.

Steve Smith: The figures are £1.1 billion for England and Wales and £50 million for Scotland. The total figure is about £1.2 billion.

Ms Alexander: So the total figure is about £1.2 billion. What is the mechanism by which consumers make that contribution?

Steve Smith: Basically, suppliers pick up the costs and pass them through. When people get their domestic bills, part of what their supplier has to do is ensure that it recovers the costs, so that it can pay them to National Grid.

Ms Alexander: Given that Ofgem's primary duty is to look after the consumer interest, what is your assessment of the system from first principles? You said that there is no net contribution directly from generators and that constraint payments are rising towards £300 million. Generators, whether in England and Wales or elsewhere, will get a subsidy back on the transmission side, but consumers will pick up costs approaching £1.2 billion. Before we get into the minutiae of the transmission access review, do you think that a system that involves charging for transmission is appropriate as we move forward?

Steve Smith: The transmission access review, which we hope will bring in reforms from April 2010, is firmly on the table. It is considering the fairest way of allocating costs between generators and customers and between generators in Scotland and generators in England and Wales and so on. However, given the escalation in constraint costs, we have said that we cannot wait until 2010. I think that Alison Kay from National Grid referred to the fact that we will issue an open letter this week to National Grid saying that we expect it urgently to review costs because we want the industry to debate the alternatives and produce proposals. We might decide to do nothing or to do something, but we regard costs as a big issue that must be debated, given the rapid escalation in constraint costs and the impact on customers—we cannot just plough on as we are.

It is also worth saying that my forecast on constraint costs assumes that we will connect no more generation in the next 18 months. One of the big issues in front of us is that we, National Grid and the Scottish companies have identified a potential 0.5GW of renewable generation in Scotland that we could physically connect. That renewable generation can get built and connected up to the system, so we must find a way of doing that. However, as things stand, the £300 million constraint cost will probably climb to £400 million if we do that. We must find a way of making that connection that does not just lead to even higher constraint costs and even bigger bills for customers.

There are ways in which we can do that. For example, we can raise the price for generators, or we can tell them that although they can come on to the system, we will not pay them when they cannot generate because the capacity is not there. There is a range of options, and we have said to National Grid that it must review them urgently and return to us with a set of proposals to deal with the problem. We need to get more renewables connected without that leading to a big net contribution from customers.

Ms Alexander: Indeed. There is an anticipated net contribution from connection going ahead, but there is no decision yet on how the net deficit, so to speak, will be covered.

Steve Smith: If we made no changes to any of the arrangements and gave the companies the consents that they want to connect, we would see the constraint bill go up, which would feed directly through to customers, who would see it in their bills.

Ms Alexander: There is presumably a direct feedback loop, so that the £1.2 billion would adjust out accordingly and, by implication, rise to £1.6 billion on the basis that there is no one to hold the deficit, so to speak.

Steve Smith: National Grid just passes those costs through. There was reference earlier to its incentive scheme, which is under negotiation for next year. Obviously, a big issue with that is what the level of constraint costs will be. As I said, they are currently forecast to be just shy of £300 million, but that assumes that there will be no new connection of renewables over that period.

Ms Alexander: I have a final question about that. What you have said is helpful because framing the debate in terms of the relative contribution of generators vis-à-vis that of consumers, rather than simply framing it in terms of geography, is a helpful way to think through the issues from first principles.

There is an obvious question about how we incentivise the connection of renewables as

quickly as possible. We heard earlier about planning system constraints, but there is clearly good will to expedite the planning process. In relation to the general principles, what is the best way to incentivise the speedy connection of renewables? The public policy interest is in access by renewables to the system and an increase in renewable generation. That is a separate matter from identifying the individual generators, which is, frankly, a third or fourth-level matter. What direction have you given to National Grid? How do you see the issue being dealt with to maximise speed of connection?

Steve Smith: We have to get rid of the queue and the ridiculous situation in which a renewable or conventional generator that asks National Grid to connect them will probably get a date sometime between 10 and 15 years from now. That is, frankly, unacceptable, particularly on security of supply grounds. We are worrying about whether Britain will face a crunch in 2016. Anyone out there who is brave enough in today's investment climate to consider making an investment in conventional or renewable energy is told that there might be room in 10 or 15 years. That situation is not acceptable and it must go. A generator that wants to connect must be given a sensible timeframe for doing so that is consistent with how long it physically takes to build the plant.

Looking four to five years out, I am optimistic that what we and the companies are doing on the investment front should mean that, planning willing, we will begin to have a transmission system that is broadly the right size for what we need, and that connection will be relatively easy because the transmission capacity will be there.

12:15

The problem that we have for the next four to five years is that we cannot magic more capacity out of the ground. The grid companies can do—and are doing—some clever things to squeeze a bit more capacity out of what they have, but basically we are in the game of considering how we can allocate what we have to ensure that it gets to the people who are there. That brings me back to the question of constraint costs.

We can let everyone on to the system—that is a form of connect and manage—but we need to ask them how we can fairly price access to the system so that they still make a fair contribution to the cost in periods when we do not have quite as much transmission capacity as we want. If we do that and get all the renewables on to the system, the fact is that they will run when the wind is blowing, because the economics point that way. Once renewables are on the system, they will have a competitive advantage over existing generators because their marginal fuel costs are, essentially, zero.

As long as we can get the renewables connected, you will get what you want, which is generation running in a sensible order in terms of carbon emissions. The project will have been successful if the queue is removed. It will be successful if a renewable generator can tell National Grid that they want to connect in two years' time and be told that that is fine. It will be successful if I do not have to come back and tell the committee, or a committee in the Houses of Parliament, that the cost of doing all that has meant putting £500 million on customers' bills. I need to be able to say that we are charging the generators enough for access so customers do not face a disproportionate burden.

The Convener: Ultimately, the customer will pay anyway, even if you charge the generators.

For the committee's benefit, will you explain how constraint costs are calculated and what the constraints are that give rise to the costs?

Steve Smith: If, for any reason, National Grid cannot deliver access to the system to a generator who has the right to access it—if there is a fault on the system or there is simply too much generation, for example—the generator can name its price and say, "This is the compensation I want for being unable to access the grid." That figure has two big drivers. First, there is a volume effect, in that we have to consider how much economical generation exists in Scotland that wants to generate versus the physical capacity of the system. That capacity varies. It is lower in the summer because that is when we do work to expand capacity—so circuits are out—and it tends to be higher in the winter. Secondly, there is an issue to do with the price.

We can do things to mitigate that figure. We could turn around to generators and say, "Actually, we're not going to give you any compensation. If the system's there, you can generate; if it's not, tough." We could do things on price. At the moment, we give the generators the right to name their price, but we have made public our concern about some of the prices that are charged. Scottish Power and Scottish and Southern Energy are the largest beneficiaries of those payments on the generation side. You could certainly ask them for written submissions on the matter, but the prices that they charge under constraint conditions tend to be a lot higher than the prices that generators with similar technologies in England and Wales charge under constraint. We could step in and say, "We're no longer going to allow companies to name their price", and we could put in place a regulated price or specify how to calculate the price. There is a host of things that we could do to manage the situation.

We are asking National Grid to consider whether there is a more sensible way to reduce the

constraint bill and, when we have done that, who should pay for it.

I would be careful with the argument that the customer always pays in the end because that is not necessarily the case when we subsidise generation on the system. Depending on whether the level of subsidy is more or less generous than it needs to be, there may be generators on the system who face constraint costs but do not pass them on to customers—instead, the costs just reduce the profitability of their investment. However, I accept that, for conventional generators, costs are costs and have to be recovered.

A point that gets lost is that the Scottish thermal generators get a comparative advantage from being in Scotland. Why is the Peterhead plant in Peterhead? Because it is very close to the North Sea. The same locational charging that people there do not like actually benefits them because they get cheap gas transportation. Scottish and Southern Energy's Peterhead plant benefits from locational charging, because it pays a lot less to get its gas delivered to the power station than an equivalent plant would that is miles away in England or Wales. Similarly, land costs and labour costs are lower in Peterhead.

I ran a generation business in the north of England, and it had high transmission charges. As with any business, when you choose where to locate, you know that some things will be good, such as lower labour and land costs and being close to a port where coal is brought in, but other things will make costs higher. You take everything in the round. It may well be that Scottish generators—even conventional ones—can wear the higher transmission charges without a problem.

I have a final point on an issue that was ignored this morning. British Energy opposes the postalisation of transmission charges. British Energy is a major Scottish generator and has significant assets up here. It clearly takes the view that the current arrangements are not completely daft.

The Convener: I am still slightly confused about how the constraint costs operate. Is it that, when there is a demand for electricity but a generator cannot supply it because of constraints in the system, the generator can obtain a payment? Or is the payment for when there is imbalance between supply and demand?

Steve Smith: It is purely because of imbalance in the system. With an infinite transmission system, if demand is 100, all of that 100 can be supplied from the most economical generators in Scotland. However, if the capacity on the transmission system between Scotland and England and Wales is only 50, only 50 can be generated in Scotland.

The Convener: When the interconnector capacity between Scotland and England increases, is it likely that the constraint cost to generators in Scotland will reduce?

Steve Smith: There are two big drivers of constraint at the moment. As you suggest, one is the interconnector between Scotland and England and Wales, but there is also a big constraint within Scotland—which is what the Beauly to Denny transmission line is designed to relieve. The line would cure half the problem but still leave the other half.

The Convener: Thank you—that explanation was very helpful.

I will bring in Wendy Alexander, but first I will bring in Dave Thompson because I know that he has to leave.

Dave Thompson: Thank you, convener.

The present system is illogical, and I am glad that Mr Smith clarified the question of constraint costs. Ensuring that the grid capacity is adequate will remove many of the problems, and generators will be able to put more or less everything that they produce on to the grid. The issue is therefore a bit of a red herring.

Scottish Power and Scottish and Southern Energy told us this morning that the problem with the present charging regime is that it is likely to chase away capital investment at a time when capital is very scarce. The regime could be seen as a sign to companies who might want to invest in renewables in Scotland. I presume that the boards of those companies, which are international, do not understand what Mr Smith has been trying to explain—that the regime is not really a problem at all and should not chase away their capital. Either that, or some other factor is at play. Those people know what they are talking about, and if it is true that the regime chases away capital, it will be an important factor for those companies.

Perhaps Ofgem is constrained in its views by the legislation that controls it, but we have to consider the bigger picture. Mr Smith said that we have to get renewables in more quickly. Customers need electricity, in the south of England in particular, and I would have thought that it would be much better for them to rely on electricity from renewables from the north of Scotland than on Russian gas. Do you not take that sort of consideration into account when you make decisions? People need power, but if Putin cuts off the gas supplies and you have restricted the amount of electricity that can get down south from

renewables up in the north of Scotland, you will not have done consumers any favours at all.

Steve Smith: I will try to answer the first part of that and then come on to the second. I cannot put it any less bluntly: companies are commercial enterprises, and transmission charging costs Scottish Power and Scottish and Southern a lot of money, so they will make the arguments that they need to. However, at present, something like 5GW of conventional generation is under construction in Great Britain. If our transmission charging were chasing capital investment away or were prejudicing the security of the supply, that construction would not be happening.

Companies such as ESB International Ltd, which is a new entrant, are happily building plants in Britain at the moment. Interestingly, ESBI is selling all of the output from its plant to Scottish and Southern. I therefore challenge the proposition that what we are doing will chase away investment or capital.

As Scottish Power said, it is looking actively at whether carbon capture and storage is a viable proposition for its Scottish plant. There are comparative advantages for the existing Scottish plant because it is close to existing North Sea infrastructure. If CCS works, I do not suppose that Scottish Power will argue that a gas-fired power station in the south-west of England 200 miles away from that infrastructure should be subject to postalised charging on the CCS network so that it faces exactly the same costs of transporting that carbon dioxide 200 miles to the coast. You need to take the companies' arguments for what they are because they are commercial organisations. If we saw any evidence of capital being chased away because of transmission charging or a security of supply problem, of course we would do something about it, but that is not the reality on the ground.

I accept absolutely Dave Thompson's point about renewables, and I go back to what I said: we are in the game of getting as many renewables as possible on to the system. We are stretching every sinew to change the regulatory and commercial arrangements to do that. As we say every time that we appear on such platforms, if anyone can bring us evidence that transmission charging will be a problem, we will look at it. If something needs to be done, either we can go to Government and say, "You need to change the subsidy mechanism to deliver more money," or we can look at transmission charging, which the Government can do something about because it has a power to cap the charges. You need to separate the renewable from the conventional arguments, but on the latter the fact is that people are currently building conventional power stations in Britain.

Dave Thompson: You said that there are currently 5GW of renewables resource up north, but you might be constraining the situation because it could be two, three, four, five or 10 times that amount if the infrastructure had been up to scratch in the first place and the charging regime had been more equitable. There could be an awful lot more resource. That there is only 5GW at the moment is not really an argument in favour of the equity of the charging system.

Steve Smith: I am sure that Scottish Renewables and others would back this up: there is no evidence that there is any onshore renewable resource that is not already under development or being looked at, given the constraints of what the planning regime is likely to allow in onshore penetration. We are already in train to do as much onshore as can possibly be done to hit the 2020 target.

There is no evidence that transmission charging is a problem in that regard, which is why the focus is now on offshore generation. The debate remains very much open: we are now looking beyond existing rounds 1 and 2 to rounds 3 and 4 of offshore deployment, and I am sure that the transmission charging debate will be an issue. However, as I said, a lot of the offshore potential resource lies in the south-west and north-east of England, and potentially east of London as well.

Ms Alexander: We are working hard at this issue, but it is a valuable one. I paraphrase Steve Smith's point when I say that he regards Scottish Power's and Scottish and Southern's transmission charging interest as one of commercial special pleading, if I can put it that way. I will let that point lie on the table.

I am interested in Ofgem's objectives for the transmission system that we are trying to create for the future. I ask about them given your considerations, the first of which is the consumer—including current and future consumers—which implies a secondary commitment to sustainable development. You could abolish zonal charges tomorrow and have a less favourable system with the message, "Name your price for anything that we cannot connect." Frankly, all the problems would come back to Scotland and the onus would be on sorting out the planning system to address the transmission issues. The truth is that you could fix the issue tomorrow if you so wished and there would be a lot less heat around it, but that is not what I am interested in.

I am interested in whether Ofgem believes that having locational signals in the transmission system still makes sense given our objectives to incentivise renewable as opposed to conventional generation. There is a first-principles question for you here: can you fix the balance between transmission charges and constraints? The answer is yes, but let us leave that aside.

Do locational signals make sense when we are trying to shift significantly the balance between conventional and renewable generation? Critically, will you apply a locational signals approach to offshore transmissions, independently of who bears the cost? From first principles, is it right to apply that approach given Ofgem's wider objectives? Other European countries do not believe that locational signals are appropriate if we want quickly to incentivise renewable generation over conventional.

12:30

Steve Smith: If we hit the EU commitment that we have signed up to, by 2020 at best between 30 and 40 per cent of our electricity will come from renewables, which means that 60 per cent—close to two thirds—will still have to come from non-renewable sources. A range of low-carbon technologies are competing to fill that gap, and there is a huge amount of uncertainty. We could have big centralised power stations with carbon capture and storage, or we could have more local distributed heating and microgeneration.

The benefits of locational charging relate to transmission, which has a large environmental cost because of the carbon that is associated with the steel and copper and because of visual amenity issues and the fact that people rightly do not like transmission lines in areas of natural beauty. Locational charging is about trying to capture those costs and signal them to people so that, when the technologies are competing to provide the remaining 60 per cent of electricity, the costs are factored in properly.

For example, if a CCS plant is built close to an area of demand, thereby avoiding the need for transmission, that must be better than a situation in which the plant is built somewhere that requires 100 miles of transmission cable. None of that means that transmission charging will be determinative. As I said, even with locational charging, we could end up with a lot of generation in Scotland, because people might say that those costs are more than outweighed by the benefits of being close to the North Sea and the lower costs of moving CO_2 to where we need it to be, which can be expensive.

The simple answer is that we think that locational charging makes sense in principle, even with the challenging renewable targets. The aim is to drive out the right answers to the big questions about where the remainder of our power and our back-up fuel sources will come from. As was said earlier, even with renewables delivering 40 per cent of our energy, there will be a large number of days on which not much renewable energy is generated. We must ensure that, in delivering the back-up, the environmental costs of transmission are properly taken into account.

Ms Alexander: We get to the nub of the issue. Let us assume that the most optimistic scenario, in which 60 per cent of generation remains conventional, comes about. You suggest that locational signals are meaningful for that 60 per cent, although, as others have pointed to, if CCS works it will have a locational dimension, too. Even leaving that aside, the other 40 per cent of generation—the renewable capacity—will have locational constraints, albeit in the broadest terms, so it is hard to argue that a system with built-in locational signals will help to optimise capacity.

Steve Smith: That is an empirical question. I put it to you that locational pricing will help to optimise the system. At its simplest, if 40 per cent of electricity comes from renewables and the bulk of that generation needs to be in Scotland because that is where the resource is—that may well be the case—we need to tell people that it will become expensive to site our conventional generation there, too, because, on the days when everything runs, we will need a lot of transmission capacity. That does not mean that the conventional generation capacity will not be built in Scotland, but there is a question about how much we want in Scotland and how much we want in the south-west of England. The answer from optimising the system may be to have all generation in Scotland—because that is the cheapest way in which to remove the CO_2—and to build a large transmission system.

We do not think that locational pricing will prevent that from happening. Indeed, we think that that is exactly what will happen, because people will say that, even though it is more expensive to generate here, the cost of getting rid of the CO_2 is so much lower. That is why Scottish Power has just put £200 million into flue gas desulphurisation. If it really thought that Longannet was finished, why would it be investing £200 million in keeping it running? Why would Scottish and Southern Energy be spending money repowering Peterhead? The companies can and do consider all those issues.

The Convener: We have given that issue a fair airing. We got a lot of useful information, on which I am sure that the committee will reflect later.

Rob Gibson: I want to raise a couple of issues. Ofgem's view that renewables obligation schemes should not be banded by technology and that the subsidy should be inversely linked to the wholesale electricity price was raised earlier. Why have you taken that position?

Steve Smith: The renewables obligation has been terrible value for money since its inception. It is one of those classic schemes that was a good

idea in theory—we supported it at the time—but practical experience has shown that it is just very expensive. You do not link the levels of payment to what is going on in the wholesale market, so you end up paying too much when prices are too high and too little if the recession prices go too low. More important, under the renewables obligation certificate scheme, if people cannot build because of planning or grid-access issues, customers still end up paying. Compared with a scheme where you pay people only for what they deliver and what they need to come on to the system—you pay the difference between what they need and what the wholesale price is—any form of renewable obligation scheme, even with banding, will cost customers billions more than it needs to. We have been saying that for a number of years. Given the state of the macroeconomy and the problems that business and domestic customers face, can we really afford a subsidy mechanism that just recycles a lot of customer money but does not deliver renewables?

I heard what was said about stability and certainty. I find it interesting that people can argue that stability and certainty are necessary, but that they would like the banding changed. That does not sound very stable and certain to me. I notice that just about every chief executive officer of an energy company has appeared on the front pages of the *Financial Times* to say that the ROC scheme does not work any more and needs to be changed, that they cannot deliver offshore wind and that they need more subsidy. They say that Ofgem cannot change the ROC scheme into something that offers better value for customers—that is not allowed—but they can make changes when they think that they cannot deliver their investment.

Changes to the scheme would be hugely beneficial to customers. You could deal with all the concerns of the renewables guys by saying to them, "We'll give you the ultimate bankable proposition. Come hell or high water, you'll get paid £60 a megawatt hour for every renewable you deliver, but we'll pay you the difference between that level and the price in the market." That would dramatically cut the cost to customers and it would allow any existing or putative renewable project to go to its bankers. If we are really worried about customers—which we always should be, particularly at the moment—we ought to be having such debates. If the companies are saying that they are not sure that the ROC scheme works any more because of the escalation of offshore costs, surely it is legitimate to ask whether other alternatives would deliver more cost effectively the renewables that we want.

Rob Gibson: Surely that flies in the face of the issue of the costs of meeting climate change adaptation and so on. In the wider sense, it will cost more to do that. The sooner we get on with the job, the less it will cost. You seem to be proposing that we continue with a scheme that does not incentivise the bits of kit that, within 10 to 20 years' time, will provide a big proportion of our energy needs in Scotland and Britain, on the basis that you support the current funding mechanism.

Steve Smith: Perhaps I was not being clear, but that is not our position at all. We have no problem with the idea that, under a differential support scheme, the price might need to be £40 for onshore wind and £80 for marine and tidal. That is fine. We are saying that there should not be a scheme that pays people irrespective of whether they deliver and pays them a level of support that is not linked to what is going on in the wholesale market. What needs to be paid to people must be worked out and guaranteed as a revenue stream only if people deliver and produce. If the wholesale price goes up, the level of support should be reduced so that people will still get the same income line. In the previous oil crisis and major recession in the 1970s, there was a big consumer backlash against things such as energy efficiency. My big fear is that that will happen again. Unless we can demonstrate to customers that the schemes that are in place are value for money—that although stuff may be expensive, more of their money is not being spent than needs to be—there is a real risk that customers who are faced with difficult economic times will want the baby thrown out with the bath water.

Rob Gibson: Okay. Would a feed-in tariff system be more beneficial to customers?

Steve Smith: It would certainly be cheaper than the ROC scheme. The fundamental difference between a feed-in tariff system and the ROC scheme is that it will pay only if you deliver. At the moment, the ROC scheme pays, irrespective of whether you deliver. The suppliers' commitment is either to deliver a certain percentage of energy or pay a fine. At the moment, suppliers simply cannot deliver that percentage because of grid access and planning constraints.

Rob Gibson: Would a feed-in tariff system be better than a ROC scheme for the development of marine renewables in particular?

Steve Smith: As things stand, through the banding, those involved in marine technology need to take a view on what the ROC price will be and the level of support that will be obtained. A feed-in tariff system would involve a much simpler calculation because people would simply be told what was on offer. There are many different ways of providing support to meet the needs of marine renewable energy other than banded ROCs. Our position is that we should not narrow our options: rather, we should consider a wider range of options and work out what is best.

The Convener: Is there a practical difference between ROCs that are based on a fixed price, and a feed-in tariff, or are they roughly the same thing?

Steve Smith: The ROC price is uncertain, and the Government has had to make various changes to prop it up. The scheme can be extended in time, and concepts such as a ski-slope mechanism, and other things that even I do not pretend to understand, could be introduced. People talk about simplicity. If I were a renewables developer and someone said to me that if I built a particular type of technology, I would be guaranteed a price of X pounds per megawatt hour for the next 15 years, that would sound to me to be the simplest approach. It would be simpler to understand than being told, "There's a ROC price that's likely to be this level and then there are all these complex mechanisms and things in the future." I struggle with the arguments, as I have worked in the industry on the other side of the fence. If I were looking to invest, I would find something much easier to understand.

Rob Gibson: Indeed. I would like to consider another aspect. The customer is your primary concern. The lack of a fair share of funds in Scotland from the CERT scheme surely represents something of a failure on Ofgem's part.

Steve Smith: There may be a misunderstanding. We are simply a CERT scheme administrator. I know that that sounds like a weaselly answer, but we are that because of the nature of the legislation. We have no control or influence over how things are doled out or over how the suppliers respond. The statute sets things out and the Government decides what happens. We simply implement the provisions. We issue certificates and ensure that the suppliers do what the regulations require. The situation is odd. Ofgem has control and decision-making powers in most policy areas, but we have not had such powers over the CERT scheme, the energy efficiency commitment before it or the ROC scheme. We simply have an administrative function. Essentially, we dole out certificates.

Rob Gibson: Do you offer any views on the matter?

Steve Smith: We have done so, but the kindest way of putting things is that they have been studiously ignored every time the arrangement has been considered. We have said to the Government that the scheme falls between two stools, because it has a social element and an energy efficiency element. We think that it probably does not get the best bang for its buck on either element because of how it is designed. You can look at what has happened. We have submitted public responses to all the consultations. We think that there are better ways in which to organise things. I think that the previous review was 12 or 18 months ago. In fairness, I do not think that we picked up then on the issue of whether the allocation of funds to different regions is fair, but we have certainly submitted critical views in the past, which the Government has not picked up on. Our voice has been only one among many.

12:45

Rob Gibson: So how do you suggest that Scotland gets its fair share?

Steve Smith: If I knew the answer and if I knew how to have influence on that question, we would have done so by now. You simply need to put the arguments. You can make the arguments to us, we might find them persuasive and we might, in future consultations, make them ourselves, but I am not sure that that will necessarily result in the outcome that you want. You will have to go directly to DECC, which is the department responsible.

Marilyn Livingstone: You state in your submission:

"Our work on sustainability includes helping the gas and electricity sectors to achieve environmental improvements … taking account of the needs of vulnerable customers".

In light of that work, I want to talk to you about the price differentials between tariffs and payment schemes, and the issue of moving towards social tariffs. We have heard evidence that price differentials have an impact on the fuel poor and that they do not seem to have a fuel cost justification. I have received quite a lot of complaints from my constituency about the extra cost of using prepayment meters. Some people find them helpful for budgeting, but those who have to use prepayment meters include students, travelling people and the most vulnerable. What are your views on that? What is Ofgem doing to help the most vulnerable customers?

Steve Smith: We did a major probe into the retail market to ascertain whether it was working well for customers. We did so in a segmented way, not just with regard to customers in general, because there are different segments of customers, including the vulnerable and people using PPMs. Although we concluded that the market works well for certain customer segments—broadly speaking, those who run their accounts on a direct debit, who have access to internet sites and who are able to switch—it has not been working well for some other groups of customers.

With regard to payment differentials, we got detailed information from the companies and we considered what the actual cost differentials were. We found out how much more it costs to serve a PPM customer as opposed to someone who pays

by direct debit. We got some pretty robust data on that. Broadly speaking, it costs about £70 to £80 more to supply a prepayment customer, which is largely because of the additional costs of the meters themselves and because of the need for a payment infrastructure—we need to pay newsagents and other shops to take payments, to run the payment cards and so on.

The other concern is about those people who pay on standard credit terms, as opposed to direct debit. The cost difference there comes to about £40. That reflects the fact that someone who pays by direct debit is not getting credit off the supplier, whereas, for someone paying under standard terms, the supplier buys the gas and electricity for the customer and supplies it, and then the customer pays in arrears. There is a working capital cost there.

When we considered the actual differentials in the marketplace, we found evidence that, for certain suppliers in certain regions, the differentials were significantly above cost. We said that that was not acceptable. We have gone out to consultation, and we are saying to the industry that we will consider introducing licence conditions that would mean that, unless the differentials were cost justified, we would be able to take action against the companies concerned, including fining them. Our chief executive and chairman have made it clear that if the companies do not play ball in that regard we will be perfectly happy to take them to the Competition Commission to get those powers. Alternatively, the Secretary of State for Energy and Climate Change may well decide to step in and consider legislation to deal with the issue. The consultation closed recently, so we will be making an announcement within the next few weeks about where we go in that regard.

That is one area of our action on payment differentials. Another huge part of the outcome of the probe that we have done was work to help vulnerable and fuel-poor customers to get the best possible deal out of the market. We have been doing work to clean up social tariffs so that, if a supplier offers a social tariff, anyone who is advising customers can be clear that that tariff is the cheapest one available for that customer. We have said that that must be the case if suppliers wish to call something a “social tariff”.

We are doing work, too. We have piloted a programme with the citizens advice bureaux to consider supplying them with information packs to give the bureaux the information that they need to get people the best deal that they can, depending on people’s payment method and circumstances.

It comes back to the issue of our role and our statutory basis. Even if we get the market working as well as possible, those payment differentials will still be a problem. Given what is going on in the macroeconomy, people’s incomes and the problems of insulation, we will still have a huge fuel poverty problem. We can do some things to help, such as ensuring that people are not paying any more than they need to, but I must be honest and say that even if everyone was on the best social tariff in the market, we would still have a major issue with fuel poverty. People’s incomes are not sufficient and—a particular problem in Scotland—the quality of housing is such that the physical cost of heating is high relative to income.

Marilyn Livingstone: Will you be able to take action quite quickly following the consultation?

Steve Smith: Speed is one of the issues here. If the suppliers agree, the licence conditions can be operative within 28 days and we would have the full range of our powers, which are the power to take enforcement action and the power to issue financial penalties of up to 10 per cent of turnover. If the suppliers refuse, we will have to go to the Competition Commission. That would take six to nine months. If it voted in our favour, the powers would go live.

That is why the Secretary of State for Energy and Climate Change, Ed Miliband, has made it clear that if the suppliers do not sign up, he will consider whether he wants to use legislative powers, and whether he is willing to wait the nine months that it would take us to follow our due process and go through the Competition Commission. Obviously, that is out of our hands—it is a political decision for the secretary of state. The key thing is that the suppliers and the CEOs of the big six need to come back to us and tell us either that they will agree to the conditions or that they will not.

Marilyn Livingstone: In our inquiry report, we will be making recommendations to the Scottish Government. What can the Scottish Government do to help the fuel poor?

Steve Smith: On the one hand, it is a question of the quality of the housing stock, and the things that we can do on the energy efficiency side to reduce the need to consume as much energy as we do to reach a reasonable level of warmth. The other issue is that of income. It is a two-pronged attack. As I understand it, insulation and the quality of the housing stock are big issues, not just for Scotland but for Wales and certain parts of England.

Marilyn Livingstone: You have talked about CABx, and about people getting advice on the best tariffs and energy suppliers. Is that programme reaching the most vulnerable people?

Steve Smith: We are doing everything that we can to work with the organisations that are involved with those people to ensure that the programme reaches them.

The other thing that we are doing is considering sales techniques, particularly for prepayment customers. The main way in which suppliers interact with those customers is through doorstep selling. Our probe highlighted some worrying information about the extent to which people were switching to more expensive suppliers. One of our priorities is to get some robust arrangements in place to ensure that if someone knocks on your door and signs you up to a better deal, you are actually getting a better deal and are not being switched to a more expensive tariff.

The Convener: Can more be done to speed up the installation of smart meters?

Steve Smith: Again, that would help hugely in this area. One of the reasons why PPM is more expensive is that we are locked into some pretty duff technologies. Unfortunately, some of the former monopoly companies chose technologies that, with the benefit of hindsight, have proved to be rather unreliable. They are more expensive because they break down and people keep on having to be sent out to fix them.

The decision rests with the Government. As a result of the Energy Act 2008, the secretary of state has powers to mandate a roll-out for smart metering. DECC has done various consultations, and the sooner we can get some clarity from Government on the model and the timescale the better. I do not think that suppliers and Ofgem see eye-to-eye on the best way, but we all agree that any further delay is unnecessary and that we need a decision so that we can get on.

Christopher Harvie: I have a general point. At the beginning of the week, I re-read Fritz Schumacher's "Small Is Beautiful", which is now about 34 years old. What you are outlining to us about the operations of the market seems to be so untransparent that I was immediately reminded of an interview that we had about four months ago with an official of a certain bank who admitted that only three or four people knew how various instruments with which the bank was dealing worked. We have heard rather more about that since.

Would it not be simpler for the market to think in terms of things such as rationing? I say that because where I used to stay in Germany—I have to repeat this—there is a relatively small uptake of energy by supermarkets. They are not a very large part of the German retail economy because heavy lorries are prohibited from running on motorways at weekends and the German great day of shopping is not Sunday because nothing is open. As a result, there are lots of small shops and street markets, and people seem to enjoy themselves more in Richard Layard's terms, as we are supposed to have done in Britain until about the 1970s.

Are direct, old-fashioned intervention and rationing rather better than pursuing a market that has, with all the various exceptions of subsidies and so on, become so complicated that it has lost transparency, which is the essential virtue of markets?

Steve Smith: That criticism is good and fair. We have a set of arrangements that were designed for a world with large power stations and consumers who are completely passive in the process. Most people did not know where their meter was and, in the 1990s, when energy prices were falling and relatively low, most people, apart from the fuel poor, did not think about energy. The big challenge is how to move to a new world. Smart metering will be part of that. People will think much more about it.

A lot of innovation is coming from suppliers who are beginning to offer customer packages. I do not know whether the adverts have been shown up here, but suppliers such as SSE are now offering rewards to customers who can cut their consumption year on year and providing them with advice on how to do that.

The only company in Britain that offers smart metering is a new supplier that has just recently entered the market. The customer pays the supplier £100 on start, and the supplier installs a smart meter for gas and electricity. There are time-of-day tariffs and, if the customer uses more electricity at weekends and at night, it becomes cheaper.

I agree that we need to make things simpler for customers, but the jury is still out on whether the best way to do that is to allow some small, bright, innovative companies to come in and try new things, or whether we should start mandating or considering things such as rising block tariffs, whereby customers are charged more the more they use. That debate will run on during the next 12 to 18 months, but I draw some comfort from the fact that someone has entered the market, is putting smart meters on people's walls and is offering customers a different way to manage their energy consumption.

Lewis Macdonald: I want to be clear on a point about CERT. Norman Kerr from Energy Action Scotland told us a couple of weeks ago that one reason why Scotland spends less per head than England and Wales on CERT is that the funding incentivises the insulation of large groups of homes with smaller cavities rather than homes that are harder to heat and less concentrated, and he suggested that the regulatory regime that Ofgem manages is critical to that. Do I take it from your earlier replies that you are operating a regulatory system that is handed down to you and which you did not devise?

13:00

Steve Smith: Yes. Put simply, the Government sets out the savings that suppliers must demonstrate each year. Rather than just say how much energy must be saved, it says that a proportion must come from certain social groups or customers that it deems to be a priority.

Our role is almost to act as an auditor. Suppliers tell us how they have achieved their energy savings and we consider whether the figures are robust and whether the suppliers are telling us the truth. That is all we do; we have no ability to dictate where or how savings should be made. As long as suppliers can show that they have made the savings and as long as we are comfortable that the technology is proven and works, we give them a tick and they are deemed to have met the test.

Lewis Macdonald: That system is laid down for you and you simply operate it.

At the last count, the fossil fuel levy surplus stood at £120 million. I have seen the letter from the Treasury to the Scottish ministers that says that they can call on that any time they want, but it is clear that doing so would have an implication for the Scottish consolidated fund. Responsibility for that lies with politicians rather than Ofgem but, as the engaged regulatory authority, do you have a view on what might be done to release that money for renewable energy or other energy projects without a knock-on effect on the wider Scottish budget?

Steve Smith: I make it clear that, in essence, we act simply as a bank account for that fund. We write the cheque to whomever the Treasury tells us to write it to. We stay well out of the debate. The money is there and what it was intended for is clear. It is for HM Treasury and the Scottish Government to resolve where that goes. Until then, the money will sit in our account earning interest. We will pay it out whenever we are told whom to pay it to.

Lewis Macdonald: You also act as banker for the fossil fuel levy surplus for other parts of the United Kingdom.

Steve Smith: Yes.

Lewis Macdonald: If all the funds were called down at once, I presume that that would remove any knock-on effect. Is that right? Has interest been expressed in calling down the money south of the border for the purposes that I described?

Steve Smith: I would like to take that question away for a written response, if that is okay. I want to speak to our chief operating officer, who runs the bank account, so that I can answer accurately.

Lewis Macdonald: That would help—thank you.

Rob Gibson: I will touch on the transmission access review and the short-term measures that you envisage. How many megawatts of new renewable energy generation have been connected in Scotland? How many megawatts does Ofgem expect to be connected in Scotland as a result of the short-term measures?

Steve Smith: We have identified—I should give the credit to the three transmission companies, who identified it—450MW of generation in Scotland that could be put on the system in the next two to two and a half years. That would represent a 16 per cent increase on the existing amount. We are keen to ensure that all that generation gets on to the system—we have just to find a way of doing that that does not involve customers picking up a large tab. That is why we are writing the letter to National Grid. One reason for the urgent review is to consider how we put all that generation on the system and how we mitigate the impacts. If we added it without any changes, the constraint bill would be pumped up by £100 million. We must avoid that, but we are committed to putting that generation on the system.

Rob Gibson: I just wanted the amount to be put on the record.

Ms Alexander: In this rather long session we have talked a little about the network and future demand, which you outlined at the beginning, and we have talked a lot about the transmission access review, but we have talked less about the distribution price control review and about what Ofgem is doing to incentivise innovation by generators in distributed access and in heat. That is not covered at great length in your submission. Can you say a few words on it now, and perhaps consider providing us with a written submission? Our report will dwell on that particular area, with regard to the attempt to create a framework for the next decade or so.

Steve Smith: As part of the most recent distribution price control review, we gave the companies incentives to connect more distributor generation—much of which we expected to be renewable—as well as two innovation incentives. We gave them a pot of money to spend on new technologies and on examining active networks and considering the things that they could do to make better use of combined heat and power.

We also had another scheme, called registered power zones, in which we allowed companies to deploy and trial new technologies in certain parts of their network to see how they worked. One problem for us is that despite our setting up those schemes, none has been used to its full extent. As part of our review, we have asked the companies why: whether the stuff was just not there and people were not coming forward, or whether we

did not get the incentives right. We issued those questions in December. We need to find out whether the companies have a bunch of projects that they cannot fund or whether they are bereft of ideas.

We will issue our initial proposals on the distribution price control review in the summer, probably in June or July. A big part of that will consist of our answer: an incentive package that is designed to encourage the companies to be more innovative in that area.

The picture has been mixed: I should not tar all the companies with the same brush, as some have made much greater use of the schemes than others. SSE mentioned some of the things that it is doing, and I could mention a couple of the companies in England and Wales that have made the best use of the schemes, but across the industry as a whole a lot of companies have done very little.

Ms Alexander: It is not appropriate for our report to redesign the financial mechanism—that is a technical area for you to work on—but it is appropriate for us to flag up the potential here and there. It would be useful for our report if, prior to the end of April, you carried out a summary of the submissions that have been received so far, to try to identify the issues. That could be through another submission or through a review of the evidence that comes forward—we will leave it to you to design the precise incentive.

Steve Smith: We are happy to do that.

Ms Alexander: That would be helpful, as otherwise the report will be unbalanced in its recognition of what our ambitions should be in that area.

The Convener: I will conclude by raising the measures that are currently being considered by the European Union. You probably heard the questions that I asked earlier. Does Ofgem have any views on the approach that the Council of Ministers appears to be taking, which is largely to leave the situation in the United Kingdom unchanged, or on the proposal from the Parliament that would result in a requirement to unbundle the integrated companies in Scotland? What is your view on the way forward and the implications of those things?

The final point, which we did not touch on earlier, is that the gas transmission network seems to be treated differently from the electricity transmission network. Is there any logic to that in terms of competition?

Steve Smith: The first best option is unbundling—there is no doubt that that is ideally what we want to achieve throughout Europe, and if that has consequences for Britain, so be it. The lack of liberalisation, which is driven partly by the lack of unbundling in Europe, is—if we consider it in a hard-headed way—costing British customers dearly, as it has done for a number of years. It is partly the reason for our gas prices being at their current levels, and we feel some of the effects of it on electricity. We need to take a broader view and reach the conclusion that it is a price worth paying. We will have cheaper gas and electricity if we make progress in Europe.

That is the first best option, for which we have consistently lobbied, but we need to ask whether some of the compromises that are being offered can be made to work. One of the difficulties with Europe is that it likes the one-size-fits-all approach, but that does not quite work in this scenario.

The arrangements that exist in Great Britain broadly work—they are not perfect, but we make them work. Some costs are associated with them, but what is specific to Britain is that we have a very large independently owned TSO, National Grid, which covers a large part of the system, and which has two—relatively small, in electrical terms—networks attached to it. It is possible to make a system such as the one that we have in Britain work, because National Grid has the knowledge, the expertise and the financial resource.

In France, where EDF Group owns the transmission company, a similar arrangement would not work, because EDF has so much generation that it would be impossible to put in place regulatory arrangements to compensate for that.

I have given a slightly complicated answer, but the best solution would be unbundling. From a narrow GB perspective, the current situation is not particularly problematic, but that is a function of our specifics. If you are asking whether we should go for unbundling if the cost of that is to break up the existing arrangements in GB, I say yes. If we really care about customers and their end prices, there would be benefits of a higher order of magnitude than any cost to Britain incurred due to the impact of unbundling on our transmission system. It would enable us to break the oil-gas link in European gas prices, for example.

Ms Alexander: You have called for a competitive tendering process for offshore transmission arrangements. In your submission, you price transmission costs for offshore sites at about £2.5 billion. It is likely that current players in the field will apply. Why did you opt for that mechanism? Do you think that it will move us towards unbundling? It makes sense only if there is a profit to be made by those who tender.

Steve Smith: The honest answer is that it was a compromise. We told the Government that we wanted what we described as a fully merchant approach, which would involve those who build offshore wind farms building the connecting cables. At the time, when we talked to engineers, they told us that the costs offshore are such—three times higher than elsewhere—that people do not want to build a network, just the shortest line from the generator to the coast. That was long before the 2020 targets were set—we were still focusing on our domestic targets.

The engineers drew us maps that showed five or six cables running into the national grid. After looking at those, we decided that the best way of proceeding was to allow people who wanted to build offshore wind farms to build the wires, as there was no network. The Government was not happy with that and said that some sort of regulated arrangement was needed. Because a bit of infrastructure was involved and the technology of high-voltage direct current cables was new, we agreed to go for that. In Australia, where a similar link was built between Tasmania and the mainland, there was a competitive process—National Grid was one of the successful bidders—which reduced costs considerably.

The debate has now moved on. Because we now have huge 2020 targets to meet, people are asking whether we should have single lines or something that looks more like a network. I am afraid that we are where we are—that is an overused phrase at Ofgem. Legislation has just gone through, and we need to make what we have work. If people want to debate whether a network will be needed in future, nothing that we have done precludes that.

We have been through the process onshore. The Scotland-Wales interconnector was built as a merchant asset; effectively, we bought it from the companies and put it back into the network. We have an arrangement that would allow us to move to something that looks more like a network, but we are not there yet. We are still asking the engineers whether there is really a case for a network and whether there would be benefits from doing something different. That would require further legislation. We have to make what we have work because, as you said, time is not on our side. We are doing everything we can to ensure that we get what we need built for rounds 1 and 2.

The Convener: Thank you for your robust responses to our questions this afternoon, as it now is. Could you produce a brief, non-technical note that outlines in more detail how the transmission charging system works? You spoke about that earlier, but it would be helpful for us to have the matter clarified as part of our evidence. I stress the word “non-technical”.

Steve Smith: I will do my best.

The Convener: Thank you for your evidence, which has been very helpful.

Subordinate Legislation

Scottish Register of Tartans Fees Order 2009 (SSI 2009/6)

13:14

The Convener: It should not take us long to deal with the remaining item on our agenda, which is consideration of a negative instrument. No member asked for officials or ministers to be present for the item; to date, no motion to annul the order has been lodged. Are members content for the committee to make no recommendation on the order?

Members *indicated agreement*.

The Convener: That concludes today's meeting. At our next meeting, on 25 February, we will continue with our energy inquiry. Thank you for your attendance. It has been a long but valuable meeting.

Meeting closed at 13:15.

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