ECONOMY, ENERGY AND TOURISM COMMITTEE

Wednesday 10 December 2008

Session 3

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ECONOMY, ENERGY AND TOURISM COMMITTEE 24th Meeting 2008, Session 3

CONVENER

*lain 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)

COMMITTEE SUBSTITUTES

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

THE FOLLOWING GAVE EVIDENCE:

Robert Armour (British Energy)
Professor John Kay (Council of Economic Advisers)
Keith MacLean (Scottish and Southern Energy)
Sir George Mathewson (Council of Economic Advisers)
Jim McColl (Council of Economic Advisers)
Duncan McLaren (Friends of the Earth Scotland)
Frank Mitchell (Scottish Power)
Jason Ormiston (Scottish Renewables)
John Stocks (Carbon Trust)
Mike Thornton (Energy Saving Trust)

CLERK TO THE COMMITTEE

Stephen Imrie

SENIOR ASSISTANT CLERK

Katy Orr

ASSISTANT CLERK

Gail Grant

LOCATION

Committee Room 2

^{*}attended

Scottish Parliament

Economy, Energy and Tourism Committee

Wednesday 10 December 2008

[THE CONVENER opened the meeting at 09:31]

Energy Inquiry

The Convener (lain Smith): I welcome colleagues to the 24th and final meeting in 2008 of the Economy, Energy and Tourism Committee. As usual, I remind all members and witnesses and everyone in the public gallery to switch their mobile phones off rather than just to silent, because they can interfere with the sound system even if they are switched to silent. That would be greatly appreciated.

Agenda item 1 is the third of our round-table discussions as part of our energy inquiry. Today's discussion will focus on the political, economic and environmental imperatives and drivers. Basically, we want to consider how we can balance economic growth, environmental issues and security of supply in energy at a reasonable cost to final consumers. The questions involved are therefore pretty easy. We all recognise that tradeoffs will be involved.

I invite members of our panel to introduce themselves briefly and to make some brief opening remarks. There will then be questions and a discussion. Today, we shall go clockwise—that is a random decision.

Jason Ormiston (Scottish Renewables): Good morning and thank you for the invitation to attend this round-table discussion.

I am the chief executive of Scottish Renewables, which has also been known as the Scottish Renewables Forum. We represent the renewables industry in Scotland, and we have nearly 250 members, all of whom want to make a success of renewables in Scotland. They work at all scales of delivery in all energy sectors with all renewables technologies. Around 80 per cent of our members are small or medium-sized enterprises; as such, they represent high-growth business opportunities in Scotland. Given the current economic climate, we believe that they will help to lead Scotland out of recession in the next five years. We are talking about potentially billions of pounds of investments from the renewables industry.

The 2020 targets that the European Union has articulated and brought forward provide incentives, but we need the Scottish Parliament and the Scottish Government to commit themselves to

ambitious targets, which must be delivered by a predictable, clear and stable framework. If we get those things right, we will be able to unleash the potential of renewables in Scotland in all sectors—in heat, transport and electricity.

Keith MacLean (Scottish and Southern Energy): Good morning. I would like to follow on from what Jason Ormiston has said. In some ways, there are fewer trade-offs than we think, particularly at the moment, because of the imperative to invest in order to replace existing plant and thereby meet the demand for security of supply, and in order to meet renewable energy and low-carbon targets. Over the coming years, many billions of pounds will need to be spent in the United Kingdom in order to satisfy that imperative and, if the right framework is in place, a wonderful opportunity will exist to take full advantage of the economic and employment benefits that can result from such investment.

Even on a pro-rated basis—which probably produces an underestimate—it is estimated that 20,000 or more jobs will be associated with the level of investment that will be required to meet the 2020 targets and the replacement programme. The question is not whether those jobs will be created but where they will be created. Unless we create the framework for the required investment in the supply chain to be made in Scotland, many of those jobs might go elsewhere. We have the opportunity to avoid many trade-offs and we have to take that opportunity. We must focus on delivery and, particularly in the planning environment, we must support that investment in Scotland and the rest of the UK.

Frank Mitchell (Scottish Power): Thank you for inviting me to the committee this morning. I am the generation director for Scottish Power. I operate approximately 6.5 gigawatts of energy across the UK, much of which is based in Scotland. I will not repeat what has been said, but I think that we are facing some of the biggest decisions about energy that we have faced for some time and we must take a collaborative approach to that.

Scottish Power is the largest wind operator in the UK and we are part of Iberdrola Renovables, which is the largest operator in the world. We see the thermal capacity that is required in the UK, and Scotland should not be marginalised in this debate. We have to realise that the thermal capacity has been the backbone in the UK for keeping the lights on. In facing security of supply issues, it is important that we recognise that thermal needs to be operating well and effectively so that we can manage a huge growth in renewables. Thermal is the only technology that can flex and make the system operate.

It is also important to recognise that, within the thermal debate, going with gas has its long-term perils from the point of view of security of supply and affordability. Coal needs to be part of the portfolio going forward, but we have to address the environmental requirements that it brings with it. That is why we are one of the three companies that are still in the competition on carbon capture and storage, which will establish jobs in Scotland and enable us to use North Sea infrastructure beyond the lifetime of current oil assets to bring economic growth to Scotland.

Mike Thornton (Energy Saving Trust): The Energy Saving Trust works with a domestic audience in Scotland and the rest of the UK. Through the network of energy saving Scotland advice centres that we manage on behalf of the Scottish Government, we provide efficiency advice and support to 130,000 people in Scotland per year, almost all of whom are householders. The key points are that 60 per cent of carbon emissions come from decisions that are made by individual consumers. A successful lowcarbon economy and Scottish Government climate change targets simply cannot be achieved without the full engagement and involvement of those people.

I also draw attention to existing homes as a particular area of interest for us and, perhaps, for the committee, because so much carbon and low-carbon economic opportunity is centred around the existing housing stock. That merits more attention.

Duncan McLaren (Friends of the Earth Scotland): Thank you for the opportunity to speak to the committee today. I am chief executive of Friends of the Earth Scotland, which is an independent member of the Friends of the Earth international federation, which works to enable and support sustainable living. At the moment, we are focusing on climate change and the drivers to get a good climate change bill.

I am wearing two other hats today. In another life, I am a member of the Joint Research Council's scientific advisory committee for its energy programme, so I will bring what I can of that knowledge to the panel. I am also wearing my Stop Climate Chaos Scotland hat. Stop Climate Chaos Scotland is a coalition of more than 40 groups, representing approximately 1.5 million people; Friends of the Earth Scotland is one of its leading members.

In our view, the energy system is key to tackling climate change. We have to consider not only electricity but heat and transport. In all those areas, Stop Climate Chaos Scotland sees the key issue as the implementation of an energy hierarchy that puts energy saving and conservation at the top and works down through

less desirable options as necessary, prioritising decentralised renewable energy over centralised energy, and prioritising demand management over deliberate efforts to meet increasing demand. I should also note that Stop Climate Chaos Scotland has taken the position that there should be no unabated new coal-fired capacity, which means that, in practice, we are quite close to the other members of the panel in saying that carbon capture and storage is a critical, forward-looking technology.

I will conclude by saying that the key question for the committee is how to meet the imperatives of tackling climate change while addressing the recession. That is a massive opportunity for a green new deal in which investment in renewables but more so in efficiency in the existing building stock and elsewhere could lead to the generation of significant amounts of economic activity and levels of employment. In Scotland, we have the chance to follow the example of countries such as Germany in making a programmatic investment in energy efficiency.

The Convener: Finally, and certainly not least—not with a title like company secretary and general counsel of British Energy—we go to Robert Armour.

Robert Armour (British Energy): I am going last and much has been said, so I will try not to repeat what has been said.

British Energy is the largest generator in the UK and a substantial generator in Scotland from Torness and Hunterston. A lot of statistics are being exchanged today. Last Sunday morning, 75 per cent of the Scottish load came from those two stations. A more typical autumn weekday would see a load of about 50 per cent. Whichever way we look at it, we generate a substantial amount of Scotland's electricity in the current mix.

The issue is how to move forward and replace the current mix. We are moving into a phase of investment in the nuclear energy sector, with two companies announcing six new stations in England. We are looking at an investment in nuclear of £20 billion over the next 15 to 20 years. As we go forward, we have to balance the three pillars of environment, security and affordability. For Scotland, which has to take into account wider issues such as its connectivity to the rest of the UK and Europe, renewables are a major part of that opportunity. However, you also have to consider what is going to replace conventional plant to provide the balance. It is our contention that nuclear, which plays a major role at the moment and is a large and proven CO2-free means of generating electricity, has a part to play; that Scotland might want to play its part in the investment in a new fleet in due course; and that the Scottish manufacturing base might want to

play its part in satisfying the manufacturing demand.

The Convener: I will start the questions by referring to the Scottish Council for Development and Industry's report "The Future of Electricity Generation in Scotland" and by picking up a point that Duncan McLaren raised. One of the assumptions behind the SCDI's report is that electricity demand is likely to increase by 10 per cent between now and 2020. Is that a realistic assessment of the future demand for electricity, and is it a necessary assumption? Should we be doing things to change it?

Duncan McLaren: I am happy to kick off on that one. Although the SCDI report is generally sound, it has not been very optimistic in its projections of energy demand. There are two clear trends. One is a continued lower intensity of energy use in our economic activity, which means greater efficiency. However, we also expect a trend of increasing electrification of our economy. That trend will probably accelerate rather more beyond 2020 than it will to 2020 as technologies such as electric vehicles penetrate the stock more.

From the available evidence on what is possible in improving energy demand in the economy as a whole, a 10 per cent increase in demand across the picture is unlikely. Such an increase becomes likely only if we are talking about electricity alone. We can do much more to keep efficiency gains greater than increases in demand—that is an unambitious statement. We could look to reduce primary electricity use by 2020 as part of a significant decrease in primary energy use.

09:45

Keith MacLean: We are working on the assumption that the underlying trend in electricity use will be around plus or minus 0.5 per cent per annum, which results in a range of plus or minus 6 or 7 per cent over the piece. However, as Duncan McLaren mentioned, there is a significant probability that electricity, particularly decarbonised electricity, will increasingly be seen as an attractive option for transport and producing heat. Therefore, on top of the underlying trend, we need to consider new uses of electricity.

It is important to stress that the biggest opportunities for making energy efficiency savings are in existing buildings and factories, as Mike Thornton said. The vast majority of the big low-hanging-fruit opportunities are in heat rather than in electricity. The renewables debate has brought heat right up the agenda and, in thinking about overall reductions in energy use, we need to refocus our thoughts particularly on the opportunities that exist in heating and ultimately in transport as vehicles with very inefficient internal

combustion engines are replaced by electric vehicles, for example.

Jason Ormiston: A couple of years ago, we published a report entitled "Delivering the New Generation of Energy", which looked towards 2050. At the time, a cut of 50 per cent in carbon emissions was required by 2050. We assessed what energy demand needed to look like going forward and projected a small increase in overall energy demand to 2020. However, we had to project a 36 per cent cut in energy demand from 1990 levels to get to a 50 per cent carbon emissions reduction by 2050. We are now talking about an 80 per cent reduction in carbon emissions so, if we go back and work the figures, we find that an even bigger cut in demand is required. The alternative is business as usual, demand increasing and having to meet that demand through ever-growing numbers of generating stations, all of which would have to be low-carbon or zero-carbon stations. If we do not tackle demand, we will create an even bigger challenge for ourselves by having to get consent for such stations and having to get them built and paid for.

The most disappointing thing about the Wood Mackenzie report is not how it is written but its conclusions. Electricity demand is expected to increase by 10 per cent. With the current framework, one would expect that to continue, but the report must act as a warning signal that options and incentives for energy demand management must exist so that we can reduce demand for electricity and demand in other areas.

Mike Thornton: Jason Ormiston has covered the points that I wanted to make.

Robert Armour: Keith MacLean covered most of the points that I wanted to make. We, too, see switching to electricity use as a factor. Energy use may be contained, and electricity for cars, transport and heating should be considered.

Perhaps we are considering the issue in a Scottish context, but it is a worldwide issue. Worldwide energy demand will almost inevitably rise because of population growth and the development of third world economies, which will put pressure on energy resources wherever people are.

Frank Mitchell: We regard the projected 10 per cent increase in demand as being in the midrange—it is a reasonable position to take. We acknowledge the importance of energy conservation but, in reality, when we invest in housing stock by installing a lot of insulation, many people take the benefits in comfort rather than in energy savings. Given the weather in Scotland, that will continue to be a factor during the next five to 10 years, so much needs to happen. Energy

efficiency is important, but people's need to keep warm is equally important. We must be pragmatic about that.

Mike Thornton: For the fuel poor in particular, it is true that if a dwelling's energy efficiency is improved, some of the theoretical energy savings will be taken out because people will heat the building to a comfortable level, perhaps for the first time ever. However, that is an excessively pessimistic view. Investment in energy efficiency remains the most cost-effective approach, compared with most if not all forms of investment in generation, and it can happen quickly.

In the context of the climate change targets, we did not mention that carbon reduction must happen fast to meet the curves that have been suggested. Energy efficiency is one of the few things that do not have a long infrastructure-style lead time, so it should remain at least one of the centres of our attention.

Rob Gibson (Highlands and Islands) (SNP): The issue of base-load is said to underpin a raft of renewables developments. At the Scottish green energy awards last week, students won an important award for work on advanced management systems for a variety of energy sources. How much of the issue to do with base-load is based on a previous-century model of centralised production and distribution from a few sources? To what extent is that view confusing the public, who support the development of non-thermal energy, which is secure, clean, eminently affordable, infinitely available and can be delivered in small and large packages?

Keith MacLean: That is a good question. It is worth distinguishing between base-load and back-up capacity, because the terms are often used interchangeably but do not mean the same thing. Base-load is what is going on at the bottom, fairly constantly; we can then add in intermittent generation; and the back-up is what changes that supply curve into one that meets demand. The technologies that we will need when we have an increasing amount of renewables on the system will be about back-up capacity that can be switched on and off quickly, rather than further base-load, which is characterised as running efficiently at a constant rate over a longer time.

That is a big challenge because, as we move towards 50 per cent generation from renewables, we will need significant capacity. That does not mean that that back-up will be running and burning fuel all the time; it will just need to be available to meet peaks. We already take that approach: the oil plant in the UK probably operates for only 5 per cent of the time, but it makes enough money out of doing that to justify its continuing use.

We will need to consider the mix and how we can enable a high-renewables electricity system. As well as thinking about generation, we need to think about demand-side management, because the other way of matching the demand and supply curves is to change the demand curve. The electrification of heat and transport gives us an interesting way of doing that.

We also need to consider storage as a means of matching the curves. Scottish Power and Scottish and Southern Energy have pump storage facilities that allow that to happen, but there are big opportunities to consider newer technologies for storage. We can also consider opportunities in relation to vehicles and heat to provide energy storage in an overall energy system.

Frank Mitchell: I agree with much of what has just been said. It is important to make the distinction between base-load and flexible sources that can respond quickly to changes in generation from other sources in order to make the whole system work. Typically, base-load will be nuclear—it has been in the UK—supported by coal or gas, depending on what is happening with the nuclear power station fleet.

We also need to recognise the ambition that we all have for renewables, although that brings its own challenges. As the output from renewables changes, which it can do rapidly, and on a wide scale at any one time—for example, during weather events, which will usually coincide with a cold snap—there is a requirement for reserves in capacity to ensure that the lights stay on. We must all face up to that practical consideration and ensure that we get the right mixture in place. Demand-side management is a key aspect as far as renewables are concerned. We must cope with the requirements of a very dynamic output. We require a combination of sources of generation, including flexible thermal with carbon abatement.

Duncan McLaren: The idea that we should try to avoid using the term "base-load" is absolutely right, as it is very misleading. As renewables reach 50 per cent of capacity or even higher, we are clearly in a position where all we need to match it is peaking or load-following plant. We do not need plant that is inflexible and that is on the system all the time. The implication of what the other gentlemen here have said is that the matching plant will have to be fossil fuel fired, with CCS, rather than nuclear.

I want to add something about demand management. Other technologies are emerging. There are storage technologies at the household and vehicle levels. Technologies such as flow batteries and compressed air storage are being tested now, and others are in the pipeline. There are also dynamic demand technologies, as they are called. An example of that would be a fridge

that varies the amount of power that it draws from the grid according to the supply of power to the grid. It takes a very cheap and simple gizmo attached to a fridge to do that, but it means that, across millions of households, demand is varied according to the availability of power on the grid, thus helping us to manage the peaks in the future better than we did in the past. A whole set of technologies is available, but the key message is that we need flexibility to match our system both with the variable demand, which we know about, and with the variable supply from a base that primarily comes from renewable sources.

Jason Ormiston: Part of Rob Gibson's question was about the public's perception of the debate. The issue of base-load can be used as a dog whistle to lead the discussion down a path of argument that, as other speakers have demonstrated, can sometimes be a little misleading and exaggerated. I will not add to that point further.

On the question about guaranteeing or ensuring an acceptable level of reliability of supply, we have been missing the point about interconnection between markets and between countries. Over the next 20, 30 or 50 years, there will be an enormous growth in the use of renewables throughout Europe and the world. We anticipate that the various markets will join up and become interconnected. One way to improve the reliability of variable generation from renewable sources is to have a wide range of technologies operating effectively at scale, and in a geographically dispersed way. If we can capture that opportunity over the coming decades, partly in working with Europe, Scotland will have a massive opportunity to deliver from its huge potential, while ensuring that the lights stay on.

10:00

Robert Armour: I would put it another way. Whether or not we want to call it base-load, we must strike a balance. We will have renewables, which will inevitably show some intermittency; there is a correlation between the wind across Scotland and wind output, although there may be about a three-hour delay between east and west as weather flows move across the country. There is slightly better reliability if we take in the islands. but there are substantial fluctuations in power output across the day-sometimes at very short notice. How do we balance that? Do we do so simply with peaking plant? That tends to be very expensive, because it runs very little and has to charge through the earth when it does. The third part-whether we call it base-load or generation that provides a flat supply by running most of the time, efficiently and cheaply—gives stability to the grid and is part of the balance.

The Convener: Before I take the next member's question, I welcome John Stocks, who had some transport difficulties this morning. We gave the other panel members an opportunity to say a few words about balancing economic growth against the environment, against security of supply and against cost. You can make some introductory comments.

John Stocks (Carbon Trust): Thank you. I apologise for arriving late, but I had train problems.

Our future energy pitch is very much a threedimensional one. On one axis, we must look at the energy intensity of our economy. How many kilowatt hours of energy do we need to run our economy? How much utility and use can we squeeze out of each and every kilowatt hour? We must be as energy efficient as we can. Secondly, when we must purchase supplies for our homes and our businesses, we must buy them from the cleanest and most low-carbon suppliers we can. That raises the question of how we can clean up our energy supplies. One aspect of that is renewables, but we must also consider renewable heat strategies and fuels. Those are the two axes—one is how energy intensive the economy is and the other is how carbon-intensive the fuel supplies are. That second axis repeats itself in three areas. The first fuel that we buy is electricity, which we use for heat and power. It is different from the gas that we use for space heating and it is different again from the petroleum products that we use for transport. A different set of solutions and opportunities present themselves in each of those fuel areas and uses, so we must consider all three.

Rob Gibson: When we visited the control centre at Kirkintilloch to find out about management of electricity, it was pointed out to us that the controllers were concerned when a large amount of electricity was suddenly switched off but were far less concerned about the manipulation of wind farms and an increasing mix of renewables. Should not one of our concerns be to find a balance in whether the base-load or back-up capacity comes from thermal plant?

Frank Mitchell: Undoubtedly, when a large unit is lost, that can have an effect on the dynamics within the industry. That is why we have in the past ensured that we have reserves and spinning reserves to cope with that. From an engineering point of view, there are ways to manage that system.

I stress that by no means is this an antirenewables debate—I have not heard anybody here say that they are not pro-renewables. We all want to see the renewables portfolio grow, but it is important that in doing that we recognise the dynamics that can affect the system and security

of supply. We must bring in the appropriate supporting technologies alongside renewables to make them operate effectively and make the most of them. That is where the debate lies. It is not about whether we should have renewables: it is about what we do with those renewables to support them and ensure that the system can operate effectively. Please do not take this to be an anti-renewables debate, because it is not. It is anything but that; it is about how we ensure that we get the most out of renewables. Where we are coming from is that we want to ensure that we have other clean technologies that can support renewables and provide flexibility. We want to ensure that the network or system can be supported properly in its use of energy.

McLaren: Duncan Stop Climate Chaos Scotland is keen to see Scotland pursue a perspective. decentralised energy Such perspective would provide more robustness to the network, which would be at less risk from the sorts of problems that we have recently experienced. As Robert Armour rightly pointed out, over the past couple of years a large share of generation capacity at Hunterston has been offline for substantial periods of time, which is-as Rob Gibson suggested—far worse for the system than temporary or partial loss of wind power in parts of the country.

I am confident that, in the longer term, the entire Scottish power system can be renewables based, given storage and dynamic-demand-type technologies to provide back-up. In the interim, we would be well advised to consider a role for continued use of thermal power, although the driver of climate change does not allow us to consider doing that unabated. Therefore, it is urgent that we either secure the most efficient use of such power—that is, by recovering heat as well through combined heat and power technologiesor, preferably, that we capture the carbon emissions through carbon capture and storage technologies.

Lewis Macdonald (Aberdeen Central) (Lab): First, Keith MacLean made the interesting point—which has been reflected by others—that the continued growth in electricity demand that is assumed in, for example, this week's SCDI report is based on the assumption that electricity will continue to provide much the same part of the energy mix as it does at present. Keith MacLean raised the possibility that low-carbon heat or low-carbon transport solutions will significantly increase the level of electricity demand. Has any work been done to identify how much additional demand for electricity will exist in 2020 or beyond because of innovation in heating and transport?

Jason Ormiston: In a word, no. However, that could be done reasonably easily by looking at the

big picture of how much energy is used for transport, heat and electricity. One would just need to look at the Scottish Government's Scottish energy study—the study was first published in 2002, but volume 5 was published recently—and at the "Digest of United Kingdom Energy Statistics 2008". Someone who sat down for a day could work out how much might be transferred if electricity was used for both heat and transport. One would need to make some assumptions about the efficiency of the installations but, based on some agreeable assumptions, one could do the numbers.

Keith MacLean: I think that some preliminary work on that has been done. A lot of recent work has picked up on transport. The estimates that I have heard suggest that the impact of heat and transport together might range from about 15 per cent to 20 per cent or 25 per cent. Quite a lot of the assumptions that underlie those figures would need to be firmed up before we would have a good idea of the situation, but we are certainly not talking about demand doubling. There will be a measurable impact, but it will not be of that order of magnitude.

Lewis Macdonald: Essentially, does that mean that the more successful we are in developing low-carbon alternatives for heat and transport, the greater the demands will be on Scotland's electricity generation networks?

Keith MacLean: Potentially.

Lewis Macdonald: Could some of those changes have an impact as early as 2020?

Keith MacLean: For transport, the initial expectation of meeting the 10 per cent renewables target through the renewable transport fuel obligation has been radically changed. Very few people now believe that we will have a sustainable source of biodiesel or bioethanol with which to achieve that, which is why there has been a sudden transfer of interest to electric and electric hybrid vehicles as a means of indirectly introducing renewability into transport.

John Stocks: I know of no work that has been done on the matter, but I point out that the extra demand is contingent on our becoming much more energy efficient. The point at which electricity becomes the logical and controllable source of heat for houses will be when little external energy is needed to heat them. It is reasonable to assume that, if houses become energy efficient for heating, they will probably have reduced energy demands for other power uses. There should be some trade-off.

The same logic applies to transport. As electricity decarbonises, public transport that uses electricity, such as railways and trams, will be the sensible choice, and battery-driven vehicles will be

the sensible choice for personal transport to railheads and so on. Again, however, that will depend on uptake of those technologies, which will influence the base-load demand. If we are successful in some of those developments, the underlying trends for demand should be downwards.

Duncan McLaren: I have three points to make in response to Lewis Macdonald's important question. First, we must recognise that the likely low-carbon technologies, such as electric vehicles, will be massively more efficient than the current models, so the new demand will be proportionately less significant.

Secondly, as Keith MacLean said, those technologies offer us a means of storing electricity, which we would otherwise have to oversupply in the grid. Batteries for cars and home heating systems that use electricity to build up the heat store can be charged at times when there is surplus renewable power on the grid, so the challenge for investment in generation is again reduced. It is not proportionate to the increase in demand.

Thirdly, we can foresee a period when residual domestic electricity demand will increasingly be met by domestic microgeneration installations. I see Keith MacLean smiling. He is less optimistic than I am about that, but that too will reduce the increase in demand. I stand by my earlier remark. I believe that we could offset all that increase, if not more, by improving energy efficiency across the demand base, as John Stocks suggests.

Jason Ormiston: If electricity generation is to increase by 20 per cent to meet the requirements of heat and transport, there is some big thinking to be done about the networks and infrastructure that will be required to deliver that, because the load will increase significantly over time.

Our transmission network in the UK exists to deliver electricity to houses to power lights and appliances. Some of the thinking that has been done on transmission networks is about the traditional use of electricity but not the alternative uses. If we want to deliver some of the stuff by 2020, the thinking now needs to capture our desire for electric transport and heat.

This might be a glib point, but there is no better way to reduce carbon emissions from transport than to have a sustainable public transport system. That point is often missed in these debates.

Mike Thornton: The point has already been made that a sustainable public transport system would probably run on electricity, so it would not necessarily have a strong effect in ameliorating extra demand for electricity.

There is also a point to be made about microgeneration and the buffering that can occur at household level. If people use both electric transport and microgeneration, they can store the microgenerated power in their car or use it for heating their house at night. On a larger scale, the massed fleets of cars and the massed number of heaters can buffer the grid, so we can get the same benefits at micro and macro levels.

That brings us back to Duncan McLaren's point: the more intelligent the grid, and the more flexible the management of it, the more we are able to manage problems actively and turn them into opportunities. I know that sounds remarkably Panglossian, but it is true.

10:15

The Convener: That is a word that we do not hear often in this committee.

Lewis Macdonald: One of the key conclusions in the SCDI report that was published this week is that most of the additional renewable generation between now and 2020 will come from wind on a large or small scale. Do the people around the table share that view?

The Convener: For the record, there seems to be a lot of nodding going on.

Duncan McLaren: Yes—I think that wind will provide most generation, but I diverge from the SCDI in respect of the absolute preponderance of generation that it would place on wind. I am largely relying on analysis by Scottish Renewables, so I suspect that Jason Ormiston will add more on the greater potential for marine and biomass, to which I would add microgeneration.

Jason Ormiston: One of the oddities of the SCDI report is that it is optimistic about delivery of onshore wind, but pessimistic about delivery of other technologies. It has been written at a time when a lot of research is being done on hydro power, for example, so we can let the SCDI off the hook on things such as the development of the hydro sector in Scotland.

There has also been more thinking on wave and tidal power since the report was drafted, which might give us a bit more confidence about the future, especially in relation to the planning system and the transmission networks in Scotland. You would expect me to be optimistic about the potential delivery of emerging technologies other than wind by 2020: if one considers the figures and what the industry and a variety of reports think could be delivered by 2020, it seems that there could be well over 8GW of installed capacity by 2020.

The UK Government has examined some of the requirements of the renewable energy strategy

over the past few months, and it suggests that double-figure gigawatts of capacity will be required in Scotland and offshore to help it to meet its targets and its European obligations. Events have overtaken the SCDI report, but in answer to Lewis Macdonald's question, wind would still be the significant player and the significant deliverer of renewable electricity in Scotland by 2020.

Lewis Macdonald: What do the generators make of that?

Frank Mitchell: The report gives a reasonably good mid-case position. There are some elements on which the SCDI is quite conservative but, given the experience of trying to bring renewables through over the past 10 years, I do not think that it has been too conservative. The lessons of the past 10 years and how difficult it has been to get renewables projects up and running should not be forgotten when we are looking forward.

It is important for us to consider the timeframes. Many of the aspects of this morning's discussion go beyond 2020. I do not disagree with the sentiments, but we should not be overambitious from the point of view of putting security of supply at risk, although we should be ambitious in supporting the technologies that are coming through. It is important that we get the balance right. Between now and 2020, we need to consider a picture that is broadly in line with the report.

The only caveat I would offer, having read the report recently, is that I am less confident than the SCDI about the level of reserves that are required. The SCDI feels that reserve levels would be sustained through that period, but my view is that we perhaps need to examine those levels to ensure that we can cope with the growth in renewables in Scotland and the UK. That is one area in which I disagree with the report in relation to what can be achieved, given the current position.

Keith MacLean: We certainly agree with that, given the sheer time that it takes to bring through new technologies. We are aware of the timescales for wind, and there is no reason to believe that other new technologies will come through any more quickly. It is important to consider the new technologies because things will not stop in 2020. The pace of decarbonisation will increase in order to meet the climate change bill targets, so we have to consider what will come after 2020.

The newer technologies, particularly marine, will come into their own in that period. We will do ourselves a disfavour, however, if we underestimate what needs to be done in other areas at the moment. Most of those initiatives need to be started in the next year or two if they are to have any hope of being ready in 2020.

On Duncan McLaren's points about microgeneration, I am a big fan of domestic and community-scale microsolutions. However, the real opportunities are not in electricity but in heat. Again, we should be looking far more at what can be done in that regard, rather than being distracted by the electricity aspect. Unfortunately, it is a fact that the microsolutions are between five and 10 times more expensive than the methods that involve central generation. With so many other upward pressures on pricing, we need to be careful about trying to push people down that route. Some people will be happy to do that and will be able to afford it, but it is not something that we will be able to put forward as a mass solution. either because of the stage of the development of the technology or because of cost issues.

Robert Armour: We need to progress the new technologies. That is true of renewables and it is true of CCS.

Rob Gibson used the phrase "eminently affordable". Wind—especially onshore wind—is closest to commerciality. The other forms are some way away from that point.

We have to be careful. There is huge optimism about delivery of new technology and the capacity that it can produce, either in displacing carbon or in generating electricity, but attention to the historic record shows that those projections might be mistaken.

Jason Ormiston: We are in danger of creating a self-fulfilling prophecy. One of the things about history is that you can learn from your mistakes. Given that the previous Government and this Administration have tried to deal with the planning system and that Ofgem, the National Grid and the Department of Energy and Climate Change are trying to resolve transmission issues, there is no reason why, if the finance comes through to support emerging technologies such as wave and tidal power, we should not be optimistic about the 2020 targets, because the technologies may well end up producing many gigawatts of energy. Furthermore, the economics will improve over time due to factors such as worsening climate change and an increasing oil price.

If we forget our history, we are condemned to repeat it. We can improve what we are doing, based on our knowledge of what has happened in the past 10 years.

Dave Thompson (Highlands and Islands) (SNP): I want to get some clarification about CCS. In the past couple of months, we have heard differing views about how close we are to getting the technology to work. Yesterday, I heard a guy on the radio saying that it would be 10 or 20 years until we would be able to get a commercial CCS plant up and running. However, last week or the

week before, a witness told us that there is already an operational plant in Germany. What is the actual position? Where is the truth in all this?

The Convener: I am almost reluctant to invite a comment from Frank Mitchell, as he will make a bid, but I will do so in any case.

Frank Mitchell: The issue relates to the scale of the technology. Carbon capture technology has been operational for some time, but the problem lies in how we can scale it up commercially to cope with the demands of the energy sector. That capacity has been building steadily and, as you say, there is already an operational CCS plant in Germany, which has a capacity of about 30MW.

Our view is that, if we get Government support and there is clarity within the current timetable, the consortium that is currently in place will be able to deliver a 338MW carbon capture and storage solution in Scotland by 2014, using the existing assets in the North Sea. That will be the largest operational carbon capture and storage plant in the world, and will operate from an existing station. The retrofit technology that we will use to do that will be usable globally in other existing stations. We believe that that plant—which will deal with the process from production of carbon to its storage—will address the issue of the commercial scale that is required to make carbon capture a viable technology in the energy sector.

Dave Thompson: Is that contingent on your winning the competition that is under way, or will you continue with your development even if you do not win that competition?

Frank Mitchell: If we are to make the necessary scale of investment, we will have to win the Government competition. If we do not, we will be unable to invest the funds that are necessary to break through the technology issues that are holding back the process; if we do, we will be able to move forward much more quickly than other European countries.

We will always be examining carbon capture and storage technology because we believe that, in the long run, that is the solution that will help to deliver the necessary thermal capacity in the UK and Scotland, which will be important over the next 20 years, although what will happen after 2030 or 2040 is open to debate.

Dave Thompson: So 2014 is the earliest you see such a plant being operational. If there were a favourable financial regime—that is, if you were given the necessary cash—could you speed things up? If you heard today that you had won the competition, could you get the plant going within the next two or three years?

Frank Mitchell: That is a good question. The current timetable is based on the competition

winner being announced in April or May 2010. That is the lead time. The consortium is already committing tens of millions of pounds, so before we could make substantially more investment, we would need to have the security that governmental support would provide. If that security were provided sooner, it could have an affect on the timescale.

Duncan McLaren: Over several years, as a member of the Engineering and Physical Sciences Research Council's scientific advisory committee on energy research, I have seen research that shows that CCS plants are technically possible because the technology exists, but that the challenge is to make the technology commercial on a large scale. That means that we have to consider the drivers and incentives that will help to make it more commercially viable. Those aspects fall into two broad categories: the available finance and the existing drivers, such as the European emissions trading scheme, which is not currently adequate to drive the carbon capture and storage agenda in a way that will meet the UK's or Scotland's climate change targets, as it is predicated on a much lower trajectory of reductions in climate-changing emissions.

That means that Scotland will have to have additional financial or regulatory measures. Several countries are exploring the use of an emissions performance standard for new and modified power generation as a means of stimulating progressive implementation of carbon capture and storage. That would help us to meet the advice that the UK's Committee on Climate Change issued last week, which was that all coal power plants should have CCS technology at full scale by the early 2020s. That is a little vague, but serves as the latest date by which CCS could be commercially viable—Frank Mitchell has given us an earlier date of 2014 or 2015.

10:30

Frank Mitchell: Staying with the core technology issue, a small-scale pilot plant, using carbon capture, will be operating at Longannet from April or May next year.

Robert Armour: I find myself agreeing with Duncan McLaren. On the basis of the European Union subsidy for the 12 demonstration plants and so on, we should have a demonstration plant by around 2014 or 2015. We all see CCS as an essential part of the mix, which we have to drive forward. I do not wish to be the opposite of Panglossian about this, but the projections for the deployment of a substantial capacity of carbon capture and storage by 2020, 2025 and 2030 seem optimistic against the background of an industry that has not geared up for the production of what will be necessary to make the system go. I

do not see how some of the delivery assumptions are going to be achieved.

The Convener: Does Dave Thompson want to follow up on that point?

Dave Thompson: Not on that point; I have another question. Incentives for people to use less energy are mentioned in, I think, the submission from Scottish and Southern Energy. Could you elaborate on how you incentivise people to use less energy?

Keith MacLean: The tariffs that we offer-our better plan package—are unique, in that they give customers a financial reward for using less electricity. The overall package covers the installation of energy efficiency measures and lowenergy equipment that can be used in properties. That approach can work. Other suppliers have similar tariffs that encourage people to use less. Such incentives move us towards the principle of energy service companies whose role is to provide heat, light, comfort and power for people to use, and to do so in the most efficient way. Instead of making their money out of selling lots and lots of kilowatt hours, or therms, companies would make their money from managing the service and providing the equipment. That does not need to be a contradictory aim.

Ms Wendy Alexander (Paisley North) (Lab): I invite the witnesses to comment on the discussion that the committee will have immediately after their departure, which will be about what we say in our report on energy. If the committee tries to be strategic, over the next three months we could produce something helpful that will be very different from the report that we might have written a year ago. At that time, the need was for something big and visionary, with a view to what was going to be needed in 2020 or 2050. There seems to have been a surfeit of visionary documents regarding energy and climate change over the past 12 to 18 months, which is a positive thing.

Perhaps the most useful contribution that the committee could make—so that we do not produce just another report that sits on a shelf—is to determine what needs to be done over the next two years, before the end of the parliamentary session. One of the problems with the whole debate is the misalignment of the four-year cycle of political timetables with the delivery of strategies 12 years hence, in 2020, or indeed in 40 years' time, around 2050. That leads me to think about four areas where some things need to be done now. If the committee produces a report with, say, the five things that need to be done over the next two years, that could be our contribution to the debate.

I was struck by the response to the introduction of the Climate Change (Scotland) Bill last week. People said, "This is great," but then asked questions about missing pieces and about what will happen over the next two to three years. If our report on Scotland's energy future comes out during parliamentary consideration of the bill, we will have the opportunity to achieve some helpful movement on some of the issues.

The first area that I have in mind is planning. The national planning framework comes out tomorrow, and the Planning etc (Scotland) Act 2006, in its entirety, remains to be implemented it will be implemented through secondary legislation over the next four months. As others know better than I, the drivers of the 2006 act were a Government that sought change and an Opposition that, at that stage, wanted more thirdparty rights of appeal and so on. Therefore, the environment in which the legislation was drafted was not always sympathetic to anything like the uplift in onshore wind that we seek. That is reflected in the fact that, despite political sympathy for giving consents to such projects, we refuse consent as often as we give it. That does not seem to be sufficient, given where we need to get to very quickly.

Planning reform was driven not by the demands of the energy industry but by the frustration of large-scale developers that their developments were taking four or five years—it was driven by business organisations rather than by energy considerations. How do we lever the concerns of the energy industry into what gets done in the Parliament in the next few months with secondary legislation and the national planning framework? That is our core business, and we owe it to the witnesses to get that bit right. I would appreciate their thoughts.

Secondly, as the Government and everyone else admit, the missing piece is energy efficiency. If we want to make progress quickly, there are huge opportunities in that regard that we have not grasped. The carbon emissions reduction target is not enough. A fundamental choice must be made between whether we attempt to retrofit and drive programmes nationally and whether we strengthen the incentive framework. We probably need to do both, but last week we brought forward £260 million of capital investment, none of which was dedicated to retrofitting. A huge amount could be done quickly in the next two years, and some quidance on that would be helpful.

I will not dwell on the third issue because I am running out of time, but we need to say the right things about the grid. Decisions about that need to be taken within the two-year time horizon.

The fourth area is heat. Although microgeneration, as far as electricity is concerned,

may be on a longer-term horizon, what can and should be done in the next two years on a short-term heat strategy? Carbon abatement may be another area that can be addressed, but that may be further away.

Is it helpful if we say that our job is to decide what needs to be done in the next two years around the Climate Change (Scotland) Bill? What can we say on planning, energy efficiency and heat within a two-year—rather than a 10-year—time horizon for decision making?

The Convener: I ask panel members to keep their responses fairly brief. If they want to respond in more detail in writing to any of those points, that would also be helpful. We are getting a bit short of time.

John Stocks: Wendy Alexander asked good questions. We have heard a lot about strategy this morning and there has been a lot of consensus. I have seen many people nodding during the discussion, which indicates that a consensus exists.

There is a question about what commerciality is. Commerciality, be it in relation to wave generators, tidal stream generators or carbon capture and storage plants, means that companies such as Scottish Power and Scottish and Southern Energy can buy a device, install it and switch it on three years later, and it does the business. However, those technologies are nowhere near that point. Three or four wave generators that have made electricity exist in the world. Perhaps one or two tidal stream generators have made electricity, and there is a 30MW CCS demonstration plant that has captured carbon. There is a world of difference between that position and power generators being able to buy devices for a wave farm and or to retrofit them to their power stations. Many barriers must be overcome and people need a lot of help to develop those technologies to commerciality. The pressing issue is to tackle those barriers.

Energy efficiency is pertinent to the discussion. Energy efficient technologies exist today, they are proven and they have rapid payback. While we try to take new technologies forward, we ought to press on as hard as we can, and as fast as we can, to take energy demand out of the system through energy efficient technologies.

Jason Ormiston: There are 13 key actions in our response to the renewable energy framework, but I will focus on three of them.

First, the committee should scrutinise the renewable energy framework closely and examine what the Scottish Government can do to promote heat efficiency in Scotland. To set the context for that, the committee should call on the Scottish Government to publish its microgeneration and

energy efficiency action plan quickly. It has now been 18 months in the making.

Secondly, improving the planning system is not a panacea, but the Government should invest in it and get planners to make decisions quickly. Statutory consultees such as Scottish Natural Heritage should be properly resourced to deal with planning applications quickly and effectively.

Thirdly, the committee should encourage the Scottish Government to consent to the Beauly to Denny transmission line upgrade next year so that we can get going. That is the most important thing for the electricity sector in Scotland.

Duncan McLaren: I will not be quite as brief as Jason Ormiston was.

First, energy efficiency is important. As I said at the beginning, we need a green new deal. We should emulate Germany and invest in five or 10 per cent of the buildings every year, with a minimum investment of £100 million per annum. We should get that rolling from next year's budget.

Secondly, ministers have in front of them draft guidance under section 36 of the Electricity Act 1989, under which they can set both emissions performance standards for new thermal plant and waste heat recovery standards. They can start to build the foundations of a heat strategy that is not just about generating new renewable heat but which makes use of the vast amount of energy that heats the Forth at present. I am sure that Frank Mitchell would admit that that is what happens.

Thirdly, the Parliament should swiftly back the Government's position on ruling out nuclear power in Scotland. Failure to do so would undermine the promotion of energy efficiency and renewables, distract us financially and politically, and, as I know with my other hat on, distract graduates and quality staff and researchers away from the fields in which we need them.

Finally, I will comment on planning. No one has said that we should take away communities' rights to engage, but the committee must scrutinise the national planning framework carefully. You should be particularly cautious about an approach that says, "Let's put these national priorities in a framework and deem them to have outline planning permission already", because that will not be legally compatible with certain European rules and, worse, it will lead to a lack of democratic support for the measures. If we lose the public on the first tranche of investment in the grid and the next tranche of investment in onshore wind, it will be impossible to keep them with us for the next phase of the decarbonisation of the Scottish energy system.

I back Jason Ormiston's view that we must invest in the planning system so that it can make quick, good decisions rather than trying to override public opposition so that it can simply make quick decisions.

Robert Armour: I say yes to all four of the things on Wendy Alexander's list. Practical decisions and recommendations that companies can implement are indeed welcome, as is the much-needed investment in the sector, but you should not rule out considering the longer term. The decisions that we make today, particularly on generation, will lock in the mix that we will have for the next 60 years. In what we do now, we must have an eye on the future and the longer term.

Mike Thornton: I reiterate that energy efficiency measures are cost effective for the economy and Scotland plc because they rely on existing technologies and not on novel ones—I would say that, wouldn't I?

If the committee is to pick out a sector on which it can do something in the next two years, hard-totreat homes that are off the gas grid should be the target. They are not served as well as they could be by existing arrangements, and they need more investment in measures such as external insulation. If you said, "We can't do everything, so how would you to narrow it down a bit further?" I would be tempted to think about private sector rented homes, which tend to be the least energy efficient. For example, energy performance certificates—which will, in effect, rate the energy efficiency of homes for letting purposes-can be used as opportunities to bring in regulation and to say that the homes must be upgraded in order to be fully fit for letting, and fully fit in relation to carbon efficiency.

Like Jason Ormiston, we have many other recommendations and suggestions in our submission to the committee, but those are the ones that I would pick out.

10:45

Keith MacLean: With regard to planning, our clear advice is to support people who make decisions to ensure that those decisions come through the system. The public discomfort with the planning process reflects a lack of understanding about what is good and what is bad. The best way to show people is to make judgments and decisions, and we need to support those who make the decisions. I would say this, of course, but the Beauly to Denny line will be a key element: none of the things that relate to the use of renewables or achieving carbon reduction and on which there is consensus will be possible unless the line is a key part of the solution.

It is important that the Scottish Parliament focuses on what it can do and what it can influence. With regard to building standards and the approach that Mike Thornton is talking about, there are opportunities to intervene and to ensure that appropriate measures are taken when it would be least inconvenient and most economic for people to take them. We need to ensure that people are encouraged or even required to upgrade their properties when they are for sale or when planning permission or a building warrant for renovation work is requested.

We should consider opportunities to work with local authorities in Scotland on a regional or zone basis to roll out energy efficiency measures at the same time as greener generation technologies are rolled out—for instance, to ensure that an insulation programme goes on at the same time as a heat pump installation. That will reduce the mobilisation and installation costs and help to build up the supply chain by instilling confidence that a programme is in place. It will also lead to SME investment in the supply chain, which will provide job opportunities, as I said earlier.

Frank Mitchell: I will try not to repeat what has been said. I ask the committee to look at other aspects, such as inequality in transmission charging. That is a key area in which what we are trying to do in Scotland is being undermined, and I ask the committee to consider what it can do to influence that debate. It is a key aspect for us all in relation to investments in Scotland: we have to acknowledge that and ensure that we get nothing less than a level playing field in the UK for what we are trying to achieve.

Secondly, as I look out over the next five to 10 years, I need greater clarity around investment decisions. That is related to the question of what is going to happen over the next year or two. Because of the lead times for investments and what we need to do to set those up, we are trying to contend right now with the issues that people are talking about with regard to 2013 and 2015. Anything that the committee can do to help us clear up the uncertainty around the future—what will be happening in 2015 or 2020—will be a great support in ensuring that we can bring investments forward in Scotland. It would be helpful if the committee could influence that debate.

We all have huge aspirations and ambitions for the future, and a lot of today's debate has been great. I am, however, a pragmatic Glasgow engineer, and I think that we need to set out a pragmatic and practical framework for what the next five or 10 years will bring, what that means for investment decisions and what we have to do jointly in Scotland. There are still security of supply issues—ensuring that we can keep the lights on—on which we seek the committee's support.

The Convener: We have a maximum of 10 minutes to complete this session, so I ask Marilyn Livingstone and Chris Harvie to keep their questions brief.

Marilyn Livingstone (Kirkcaldy) (Lab): I will be brief, convener. I just want to follow up what Wendy Alexander said. I, too, would like the committee to consider research and development skills because, as Duncan McLaren said, if we do not have proper R and D skills, new and emergent technologies will not be supported. Any submission that we make must put skills and technology at the top of the agenda. If Scotland does not have the relevant skills and technology, we will lag behind other countries. I would like to hear the witnesses' views on how we in Scotland support R and D and how we support delivery, not just at the graduate end but all the way through. What do we need to do to be successful?

As oil and gas reserves in the North Sea diminish, how can we diversify the skills in that sector? That is an important issue. Any strategy that does not include the areas of R and D, skills and development will not work. Duncan McLaren raised the issue, but I would like to hear other witnesses' views on it.

Jason Ormiston: We surveyed our members last year and asked them what the challenges were for the future and what they were most concerned about. The committee will not be surprised to hear that they put planning high up the agenda. However, we were surprised to hear that they were concerned about recruitment. They felt that one of the factors that will drag back their potential high growth will be a problem in recruiting the right people. I think that that will be a serious problem for the entire energy sector, let alone the renewables sector.

On R and D, our members tell us that they would like a better connect between the industry and academia so that academia produces what the industry needs to get going. Some of the intitiatives that the current Administration has introduced, such as the proposed green energy centre in Aberdeen, might help, and the work of the SuperGen marine consortium—the wave and tidal group—will also help. However, we probably need to think a bit more about how we can better connect industry and academia to get the R and D that we need.

Duncan McLaren: I back Marilyn Livingstone's view that the oil and gas sector needs a just transition, with support for retraining and the redeployment of facilities and vessels. Similarly, at the other end of the scale, we need training programmes for our plumbers and electricians so that they can work with heat pumps, solar panels and so on. In addition, I am concerned about the supply of people at the very skilled end of the

market. I am pleased that the Engineering and Physical Sciences Research Council has agreed to fund a doctoral training centre in wind at the University of Strathclyde. However, there was no support in the announcement about that for doctoral training in marine technologies. In order to provide a flow of trained graduates into the sector, the Scottish Government would be well advised to match the investment that is needed to provide a Scotland-oriented centre that focuses on marine technologies.

Christopher Harvie (Mid Scotland and Fife) (SNP): We have received a copy of a report from the Government's Council of Economic Advisers, which states that the current economic slump is the worst since 1914. It is interesting to hear from that source how grim the situation is. I do not think that we face just a blip of the 1973 or 1980 sort; I think that the slump will be very severe indeed. However, in fuel terms, that surely means making a commitment to analyse the likely impact of the slump on particular sorts of demand. How well prepared are we to do that? The possible upside is that there will have to be European or even global initiatives to gain particular goals. Are we prepared for those, too? Finally, we will also have to analyse which aspects of our power use are absolutely essential and which aspects are discardable. In 1960, we had one car per 10 people, and Richard Layard tells us that we were much happier then than we are now. Is there any need to put the rescue of the ethos of motoring before supplying fuel for more important uses, such as heating?

Mike Thornton: I will start with the last point and pick up on something that I think Keith MacLean said earlier. In a way, people do not buy power or energy; rather, they buy what they get from it—heat, light, comfort, travel and so on. We are anxious that people should not think that they must suffer in order to cut carbon emissions. I see some echoes of that in the way that Chris Harvie described the situation. There are always lowcarbon ways for people to maintain the things that they want to have. People probably would not mind having fewer cars and using public transport more if that public transport was fantastic, world class and consumer centred. However, they would probably mind very much if they had to walk instead. We need to be careful about choices.

Christopher Harvie: That last option might be the best possible choice, given our problems of obesity and so on.

Mike Thornton: Yes—I accept that there is a wider policy environment.

Duncan McLaren: I wish to restate the importance of using an energy hierarchy to help us through what is almost an impasse. Such a hierarchy recognises that the best unit of energy is one that we do not have to generate at all—that is,

the conservation of energy. The next best, and next most efficient, way of improving the situation is to use the energy that is being generated in the most efficient way. Then, we get to the question of generation technologies. We have made some positive decisions to promote renewables. Lower down the energy hierarchy comes plant, which is matched with the use of carbon capture and storage—the equivalent, in the transport sector, is continuing to use a certain amount of fossil fuels. That is the way to proceed, rather than picking and choosing across the economy and suggesting that the use of energy matters in some areas but not in others. Decisions should all follow such a hierarchy.

Frank Mitchell: I return to Marilyn Livingstone's point about the reuse of North Sea assets. Carbon capture and storage provides us with an opportunity to make a real difference and to help an industry that will slowly decline re-emerge. It could provide re-employment for a lot of staff. That is not just an opportunity from a UK point of view; because of the infrastructure in the North Sea, there are Europe-wide possibilities. A whole new economy could be created, and we should not overlook that opportunity, which could bring a long-term benefit to Scotland and the UK.

On R and D, I want to ensure that the committee is aware of one aspect in particular. The UK energy industry probably has its largest investment profile ever—some people are talking about £100 billion of investment being made over the next 10 to 20 years. In relation to incentivisation, R and D, technologies and working with academics, how all the frameworks are brought together will be vital if we are to build the solutions that we will be investing in over the next 10 or 20 years, and if they are going to be right for the next 30 to 40 years.

Investor-owned companies—such as ours—need to ensure that their gearing does not go too far, given the current concern around the credit markets. Regarding our capital plans, we are under intense pressure to make the right investments. Anything to do with areas that are not fundamental will suffer over the next two or three years. You need to help us get round some of those issues.

Our expectation is that, once we get beyond the current credit crisis, the cost of credit will get much higher. Therefore, the cost of capital will increase. Our industry is faced with a larger investment profile than we have ever faced in the UK, and we will need your help to overcome the current circumstances.

Gavin Brown (Lothians) (Con): I have two highly specific points, and one general one. My first specific point is about energy efficiency. Household electronics require a lot of energy. I

sometimes feel that we are running uphill in that regard. Over a 10-year period, we might get fridges that are more environmentally friendly but, in a matter of months, we will get televisions that use more power and that we cannot ever switch off. Do you have any thoughts about how we might turn that around?

The second specific point is about carbon capture. Is the obstacle purely one of commercial viability, as I think Duncan McLaren suggested? Are there also technology issues, in particular with power stations larger than 30MW? I want to be clear about what the obstacles are.

My last question is for anyone to answer. Unusually for politics, we have had a lot more light than heat today. Indeed, the issue of heat has taken up a tiny fraction of today's discussion. However, this committee has to address the issue of heat more than most organisations have done. Are there any specific issues that we have to delve into in that regard as we move into the next stage of the inquiry?

11:00

Mike Thornton: You make a good point about appliances. As we reduce the energy requirement for space and water heating in houses and, at the same time, increase the number of televisions, computers, chargers for mobile phones and so on—particularly bearing in mind the standby issues—the proportion of household energy use that is accounted for by appliances will rise. If you want to see what a zero-carbon or low-carbon household looks like, you will need to deal with the issue of appliances.

The good news is that tools are available to help in that regard. One is what you might call choice editing. You can use regulation to enhance the efficiency of products by, for example, reducing the energy consumption of standby mechanisms. In addition, because most appliances run on electricity, the decarbonisation of the grid has some traction in this area. Finally, if you have microgeneration in your house, it could be argued that, on a household scale, you are powering your own appliances.

The issue can be solved with appropriate will and the application of appropriate strategies. It needs to be addressed, but it is a long way from being insurmountable.

John Stocks: As I said in my opening statement, electricity is only one of the three forms of end-use energy. I do not know whether each of those sources accounts for exactly a third of our usage, but we need to address them all: electrical appliances; the quality of our buildings and the amount of heat that we need to keep them warm; and transport.

Marilyn Livingstone talked about skills. We should not overlook that issue. I work closely with Scottish local authorities and know that there are vacancies for energy managers to take on practical projects. A skills gap already exists, and it is tremendously important that that be tackled.

Frank Mitchell: I will address the specific issue of carbon capture and storage. We recognise that the process involves a chain of events, starting with the carbon capture itself, then transport, and ending with storage. Each of those links in the chain has its own technical challenges. To get to the scale that we have been talking about, we will have to address many challenges, but we do not think that they are insurmountable, given the appropriate investment and focus. We believe that the technology bottlenecks can be overcome in line with the timescales that we have set out. We are working on that with companies that have the leading global experience in those areas.

Jason Ormiston: I thank Gavin Brown for raising the heat issue. You have to understand that the issue is affected by both devolved and reserved matters. For example, at a UK level, the financial support incentives that have been discussed will have an impact, but there are other things that the Scottish Government can do.

In the new year, we expect the Scottish Government to consult on a draft renewable heat action plan. This committee should scrutinise that carefully, and should perhaps have an evidence-taking session on that issue alone. You should get the Scottish Government to explain what it is trying to do and identify any gaps that there might be. We will be looking at the plan closely, and I would love to come back to the committee with a report on it.

The Convener: We would welcome your comments.

Keith MacLean: I want to make a quick point of clarification. There is an inverse proportionality in relation to how much we talk about a form of enduse energy and how much of the total end-use energy that accounts for. Electricity accounts for about 20 per cent, transport accounts for about 30 per cent and heat accounts for abut 50 per cent. The biggest efficiency gains can be made in space heating, and some of the best opportunities for displacing gas and fossil fuel use involve heat technologies such as heat pumps and solar thermal energy. We have to examine those.

The Convener: That is a good point on which to finish. I think that most of the heating in my house actually heats outer space. I hope to do something about that, however.

I thank the members of the panel for taking part in today's wide-ranging discussion, which will help to inform the next stage of our inquiry. I suggest to members that we defer item 2 on the agenda until after our discussion with the Council of Economic Advisers, as we are running slightly late.

I suspend the meeting for five minutes to allow our panels to change over.

11:05

Meeting suspended.

11:12

On resuming—

Council of Economic Advisers

The Convener: Item 3 is an update on the work of the Scottish Government's Council of Economic Advisers. I am pleased to welcome Sir George Mathewson, the chair of the council, along with his colleagues Professor John Kay and Jim McColl. The council's annual report has just been published. Sir George will present some of the report's key findings before taking questions from members.

Sir George Mathewson (Council of Economic Advisers): I am pleased to be here, following the issue of the first annual report of the Scottish Council of Economic Advisers. I am delighted to be joined by two of my council colleagues, Professor John Kay and Mr Jim McColl.

Our remit is simple—to advise the First Minister directly on increasing sustainable economic growth in Scotland. The council met for the first time in September last year, at the same time that excessive lending in the US sub-prime market triggered the start of the credit crunch. Since then, we have seen the bursting of one of the largest asset bubbles in history and the onset of the most severe financial crisis in this and, possibly, the last century. The economic impacts of the credit crunch have been compounded by rising commodity prices and high rates of inflation, which are forecast to bring an increasing threat of deflation. We have seen the sudden shock of the financial crisis in September, followed by thehopefully—co-ordinated international Government response to stabilise the financial system. Now the slowdown is spreading to all economies, including ours.

11:15

To my mind, the speed with which events have unfolded makes this economic downturn different. We might consider the reason for that. Is it globalisation, or the faster methods of communication that exist today? Whatever the reason, we have experienced and recovered from economic downturns before and we will do so again. Scotland is a country with strong economic assets. However, the current difficulties make the case for action to promote sustainable growth all the more compelling, and, we believe, the creation of our council even more timely.

Although the council has offered the Government advice on navigating recent events, most of our work has focused on the longer-term strategic thinking that is required to put Scotland on a higher growth path. The council

fundamentally endorses the approach that is set out in "The Government Economic Strategy", which remains relevant.

In the past year, we focused on four key work streams. First, in the work stream on promoting sustainable economic growth, we advised the Scottish Government on how best to achieve Scotland's 2011 growth and emissions target, which is set out in the economic strategy, and we conducted some initial work on productivity. Secondly, on developing Scotland's comparative advantage, we advised on the longer-term contributions of planning, education infrastructure to economic growth in Scotland. Thirdly, on addressing the inhibitors to Scotland's economic growth, we considered how to address the high levels of economic inactivity that exist in some parts of Scotland, particularly Glasgow. Fourthly, we focused on how Scotland's economic statistics can be enhanced so that we have a clearer idea of how policies are working and how the Scottish economy is performing.

Those work streams are reflected throughout our annual report, which gives an overview of our thinking and conversations during the four meetings that we have had in the past year. Our report makes 22 recommendations to the Scottish Government and includes 22 additional considerations. I draw the committee's attention to four key areas that we believe are particularly important.

Planning was the first issue that we discussed, because we believe that it should be seized upon as a significant driver for increasing the level of sustainable economic growth in Scotland. The business community regards the inefficiency of the planning system as an obstacle to economic growth in Scotland. We share that concern, but we believe that the issues around planning go beyond inefficiency. We believe that a more proactive approach is needed and we have recommended that the Scottish Government finds a way to financially incentivise local authorities to promote and facilitate sustainable development projects. Reducing barriers and creating incentives for business will give Scotland a comparative advantage and enable it to attract local, national and international investment.

We recommended that the Scottish Government change the culture of planning so that planners regard themselves as facilitators and enablers of high-quality developments in the right places—people who make a positive contribution to sustainable economic growth—rather than as regulators.

We also discussed education. The council readily agreed with the Scottish Government that education policy is central to the delivery of the Government's economic strategy. Higher

education is a high-cost area of Government policy and it requires a long-term perspective. Given the scale of the costs and other demands on limited budgetary resources, the council has asked the Scottish Government how it plans to fund a higher education policy that is fit for purpose in the 21st century. That is not just a Scottish challenge. The scale of funding is so large that almost every country is grappling with it. Ultimately, the Scottish Government needs to decide whether it will focus on creating world-class universities or world-class university departments, and to consider how it can afford to develop either of those.

We have offered to explore the financial and system implications at future council meetings. In the meantime, we have presented a number of quite radical actions that the Scottish Government could consider taking to develop the higher education system as a real competitive strength for Scotland.

The failure of some areas of Scotland, particularly Glasgow, to contribute and be an integral part of Scotland's economic progress is a matter of serious concern to us.

The council recognises that responsibility for addressing the key factors that have a major effect on Scotland's employment performance is divided between different levels of Government. Although we acknowledge the steps that have been taken in recent years to improve the co-ordination of those responsibilities, especially through the more local and partnership-based approach to service delivery, we believe that more needs to be done to resolve the tensions between Scottish and UK policy responsibilities. That is why recommended that options to devolve Jobcentre Plus to the Scottish Government be explored and that further consideration be given to the gains and costs of bringing together benefits and skills policy within Scotland.

We also recommended that the current partnership arrangements be strengthened through a radical change in the use of funding to drive better outcomes and that public bodies that are tasked with delivering on employability issues agree a way in which to improve significantly their data-sharing practices. We believe that those actions are required if the Scottish Government's aspirations for the reduction of economic inactivity are to be achieved.

The final area to which I draw the committee's attention is public sector infrastructure. The council has begun a review of the economic role, current condition and means of provision of infrastructure in Scotland. We are concerned about the long-term underinvestment in Scotlish infrastructure, and we believe that increased expenditure on infrastructure is required. That is a

key recommendation in our report. We recommended that the Scottish Government pursue with the UK Government revisions to the current fiscal arrangements, which would enable it to plan more efficiently and meet Scotland's overall infrastructure needs. We would like the Scottish Government to explore the possibility of new means of borrowing outside private finance initiatives, to help to finance public sector infrastructure.

The council has noted that the real and nominal interest rates for long-term borrowing have, by historical standards, fallen to exceptionally low levels. It has also noted that the recent financial crisis has widened substantially the spread between the costs of Government borrowing and the costs of other borrowing. Although those conditions create many problems, they also create a favourable environment for funding the renewal of Scotland's infrastructure. We will return to that issue as the current problems resolve themselves.

In the coming year, we will keep exploring how to secure greater comparative advantage for the Scottish economy to boost sustainable growth. We will advise the Scottish Government on how to achieve some of the longer-term purpose targets that are set out in "The Government Economic Strategy". Those include the 2017 economic growth target; the 2017 productivity target; the 2017 population target; and the 2050 emissions target. Further work is planned on the key sectors that are set out in the strategy, which have the potential to boost productivity and, hence, growth in Scotland. We will highlight future challenges for each sector and identify how Government policies can be more supportive. We will also continue to advise on planning, infrastructure and Scottish economic statistics.

In our annual report, we set out 22 recommendations and 22 considerations for the Scottish Government, which we believe will help to deliver increased sustainable economic growth for Scotland. It is now up to the Scottish Government to consider those, and we look forward to receiving the Government's response in the new year.

We will now take any questions that you have.

The Convener: Thank you for that, Sir George.

In the introduction to your report, you emphasise that the council's main objective is to look to the long term and the structural changes that are needed. However, the committee is concerned about the current economic situation and the significant change that has occurred since the council was established—indeed, since the spending review, when the Government established its budget. To what extent has the council considered whether public sector spending

in Scotland—which is substantial—needs to be changed and whether there needs to be a shift in emphasis within that budget to deal with the current economic crisis and to put Scotland in a stronger position to enjoy sustainable economic growth in the future? What advice have you given to the Government on those matters?

Sir George Mathewson: Our consideration of those issues has been limited. Most of the levers that can improve the short-term economic situation are in the hands of the UK Government rather than the hands of the Scottish Government. However, anything that can accelerate quality investment—investment that has a meaningful return—in Scotland is to be applauded. I am sure that the Scottish Government is investigating how it can do as much as it can and how it can encourage local authorities to do as much as they can. John Kay may have something to add to that.

Professor John Kay (Council of Economic Advisers): I do not have much to add. The basic point, which Sir George has made, is that the levers that are relevant to short-term policy are mainly in the field of fiscal and monetary policy, which is substantially under the control of the UK Government. The things that affect sustainable economic growth in the long run are to do with the underlying competitiveness of the economy and the behaviour of firms and industries, and those are areas in which the Scottish Government has substantial freedom of action. So, it is not only in our brief but inevitable, given the structure of devolution, that we will focus on the longer-term issues.

Of the issues on which we have focused, the one that is probably most relevant to action in the short term is the possibility of doing more on the infrastructure side. There may be opportunities in that area for the Government to move in ways that will at least ameliorate the imminent recession.

Sir George Mathewson: Planning also presents opportunities for accelerating investment over the next few years.

The Convener: I will expand the question slightly. The Scottish Government's budget will have grown to around £35 billion by the end of the spending review period, but when decisions on Government spending are taken there is rarely a root-and-branch look at how the Government spends its money. Might the council consider that in the future, to determine whether spending in Scotland by the Scottish Government is focused on delivering the overall aims of the Government? I ask that not from a political perspective, but as a general question.

Sir George Mathewson: Yes. We will look at the balance of spending—how the money is

invested in different areas of the economy. The answer to your question is definitely yes.

Lewis Macdonald: If I were to be critical of the clarity of of the top-level some thinking recommendations—I am recommendations 1 to 3, on productivity—I might suggest that they are a statement of a commonly shared set of priorities. Productivity is a priority, and the recommendations are around skills, training, levels of productivity and the key clusters in the economy that have been in place for a decade or more. What lies behind your top-level recommendations? For example, what do you have in mind when you advise the Government to improve

"capital and total factor productivity"

and to improve "labour productivity"?

Sir George Mathewson: Productivity is an area in which we looked more from the top down than we did in other areas of the report. It aligns itself with our recommendations on education, training and so on. We focused on areas in which we can achieve comparative advantage, and I would say that we have more work to do in that area.

Professor Kay: For me, the most important part of the council's approach so far is contained in recommendation 2, which reinforces the idea that the competitive advantage of a country such as Scotland rests, in essence, on its having strong sectors that compete aggressively and effectively in global markets. We have talked about some specific sectors in that regard—financial services, food and drink, tourism, life sciences, and so on.

At its next meeting, the council will begin a sector-by-sector review, because what Government can do to support the sectors varies considerably from sector to sector. For example, what one would look to in financial services differs from what one would look to in tourism or in food and drink. I attach a lot of importance to the sectoral review, which I hope will be a continuing part of the council's work.

11:30

Lewis Macdonald: At a meeting of the committee in October last year, I recall Sir George Mathewson describing employment regulations and red tape as "horrific". Paragraph 2.6 of the council's report looks behind some of the top-level targets and indicates that the council seeks

There is a good deal of evidence that the level of employment regulation across the UK is relatively light and is combined with relatively high levels of economic success. When I read that suggestion in paragraph 2.6, I wondered whether I should be

[&]quot;increasing flexibility in labour market practices".

anxious about what the council might have in mind in relation to increased labour-market flexibility.

Sir George Mathewson: I have a predilection against bureaucracy and red tape. Part of that has come through in our recommendations on planning. In my view, it is important to simplify that process to help increase economic growth in Scotland. However, we have not discussed in depth how to increase labour flexibility, nor have we visited yet the different kinds of employment regulation.

Lewis Macdonald: Will you do that?

Sir George Mathewson: We might, because increased flexibility in a labour force is vital. In fact, it will be vital in helping us to come out of the recession. However, I see no reason for people to be alarmed by our recommendations for dismantling regulations on people in work, because we are not there.

Lewis Macdonald: That is not where you are.

Sir George Mathewson: That is not where we are.

Lewis Macdonald: That is helpful.

I want to ask about the somewhat related recommendation on Jobcentre Plus. I know that Jim McColl has been involved in some of the work on that around the west of Scotland. What is the evidence base for the suggestion that the Government should look again at Jobcentre Plus's accountability?

Jim McColl (Council of Economic Advisers): We have tried various models in Glasgow to get people back into work. The latest model involves a civic consortium in which everybody is focused on agreeing what the real challenges are locally, with funds being channeled through the consortium at that level. That seems to be working well.

Jobcentre Plus has changed recently. Benefits are centralised, so that is not an issue any more. However, given that everyone who is unemployed or could claim benefits comes through Jobcentre Plus, which has offices all over Scotland, the logical thing to do would be to link up the Jobcentre Plus offices with the other members of the local consortia including skills and careers services. We work closely with Jobcentre Plus in the Glasgow area in trying to do that. We want to link up the offices so that when someone comes through the door they can be directed to the skills person, for example. The offices should be joined up; if they are not, we have separate silos. If the information that one needs on an individual is held exclusively in Jobcentre Plus, it cannot be shared with people who are trying hard to design appropriate training programmes to help people get back into work quickly. There is, therefore, a separate, inefficient silo in the skills sector and there are many careers offices. It would make sense for them all to work together as a team, much in the same way that we are putting together the civic consortium in Glasgow.

There is also an initiative from the Department for Work and Pensions on the city strategies in Glasgow, Dundee and Edinburgh; the purpose of the initiative, which is working well, is to join everything up. In a Scottish context, that could be done with Jobcentre Plus-there are various models that could be used. That activity would not have to be devolved; it could be outsourced. At one time, the DWP was considering outsourcing some of the Jobcentre Plus activity or incentivising private firms to get people into work. There could agreement with the Westminster Government that the area was not going to be devolved, but the activity would be outsourced. In the Scottish context, it would help if we had a more effective model for putting people on the right path and giving them the right support to get back into work.

Lewis Macdonald: If I have picked it up correctly, you are not saying that the system is in trouble and needs to be changed; you are saying that the model works, but it could do with being improved.

Jim McColl: It is hugely inefficient. I will give you an example. A lot of initiatives on engagement come out of the DWP. The DWP spends a lot of money on getting companies to go out and engage people. We have the silly situation in Easterhouse where staff are going into pubs, knocking on doors and meeting people in the supermarkets to try to identify whether they are unemployed and what kind of help they need. The local Jobcentre Plus office has all the details, but it cannot share them. We spend money to get people out there to identify whether people are unemployed and what their needs are. The amount of money that we spend is not insignificant; it is a lot of money that could be used more effectively in programmes to help people who are unemployed.

Lewis Macdonald: So, there is an issue about the sharing of information for Governments to address.

Jim McColl: There is a significant economic issue to address. There is quite a bit of waste, because the activity falls between authorities. Local authorities have an interest, too. I have to say that all those involved are working well locally. The issue is not confined to Glasgow; it arises in other areas, such as Clackmannanshire and the west of Scotland in general. We really need a better co-ordinated approach.

Christopher Harvie: I was most instructed by the eloquent report, which diverted me from my study of J K Galbraith and the great slump. One of the first things that you say in the report is:

"we have seen the bursting of the largest asset bubble in history and, in its wake, the onset of both the most severe financial crisis since the outbreak of the First World War and a recessionary pandemic that has swept across the world's advanced economies."

I congratulate you on that moderate judgment. As an economic historian by trade, I think that the current situation leaves 1929 rather in the shade. Remember that in 1929 the world was on the edge of motorisation, the telephone, the talking movie and the airliner. All those things are more or less indicted because of conservation issues.

It was useful to go first to John Kay in this morning's edition of the *Financial Times*—my addiction to sensational literature is like that of Oscar Wilde's Cecily.

Big institutions, hitherto of great clout, will turn up on Downing Street's doorstep expecting to get themselves bailed out. We can all think of various candidates who will be there. Given that Scotland has to exist in its current relationship, how do we get in with sufficiently great clout to induce a stepchange in priorities in the acceleration of activity? As an historian of North Sea oil, I saw how that happened with great rapidity during the 1970s. It can be done, but how do we do it, given the divided responsibilities?

I am thinking, in particular, of your conclusions on infrastructural planning and of the need to have some simple and—these days—economic method whereby the Scottish Government can borrow, in one form or another, to accelerate economic and infrastructural activity and also offer a home to savers such as myself who, confronted with a money market in which accounts pay zilch interest, would be only too glad to put their money into bond financing.

In education, should we not think about more acceleration of technical education so that our unquestioned leading position in certain scientific research—for example, into renewables—can be transmitted into our project engineering? Should we not think about establishing linkages with European industrial regions that have the training capacity that we, alas, no longer have? Baden-Württemberg has 35 per cent of its gross domestic product in manufacture, whereas the equivalent figure for Scotland is perhaps 14.7 per cent.

I am certain that acceleration of planning will follow such initiatives, but how do we batter our way to the first position on the Downing Street doorstep in the immediate future?

The Convener: Discuss.

Professor Kay: You raise quite a lot of issues. The first is about lobbying by the big firms that

have clout. That has been on my mind since I wrote—and you read—the FT piece this morning. A large part of the problem that exists at the moment is the fact that there are two elements that are tipping the UK economy as a whole into recession. One is the rather dramatic collapse in confidence that we have seen over the past few months; the other is the reluctance of banks to lend even to rather bankable projects.

The issue of big firms and small firms that you talked about relates primarily to the second of those elements. As we have noted, large firms have been banging on Government doors and demanding direct funding in a way that small firms are unable to do. Action on that issue is not much within the capacity of the Scottish Government. The Scottish Government has been exhortatory but cannot do much more than that. It is important that the UK Government is in the process of acquiring rather large shareholdings in Scotland's two major banks. It seems to me that it ought to be a more activist shareholder than it currently plans to be in ensuring that these things are delivered.

The second set of issues that you raise is to do with infrastructure, to which we may want to return for discussion as a separate topic. The council is strongly supportive of the general line that you take in saying that Scotland's infrastructure has received insufficient investment over the past 30 years and that, in many ways, the current depression can provide an opportunity to act in ways that will relieve the depths of the depression and start the process of renewing infrastructure.

The third issue that you mentioned concerns skills and training. There is probably less to offer there in terms of immediate relief. I pass that issue over to my colleagues, who may have more to say about it than I do.

Sir George Mathewson: Jim, do you have anything to add to that?

Jim McColl: No.

Sir George Mathewson: I do not think that I have, either.

Christopher Harvie: I would just like to add that Baden-Württemberg produces 10,000 qualified engineers a years, whereas we produce about 2,000. Although Baden-Württemberg has a population that is double the size of Scotland's, that is still a big gap. That comes from its having a large manufacturing sector. We must work out some method of bringing in the people who are skilled in renewables on target and on time, and I believe that that will involve collaboration with Europe. I do not believe that we can do it on a stand-alone basis.

Sir George Mathewson: We hear you.

11:45

Marilyn Livingstone: I will raise two issues. I convene the cross-party group on construction. This committee has taken evidence from the construction sector. I do not know whether you have read that sector's evidence or followed what it has said, but it believes that the single biggest thing that the Government could do would be immediately to bring forward infrastructure projects and to consider investment in affordable housing. Very senior individuals in the construction sector told us that that was needed now and that no delays are possible—we cannot wait six months until an inquiry has been held.

I return to what Christopher Harvie said about skills and training. A flight of skills from the construction industry is happening now—every day. Given the crisis in the sector, people worry about whether existing apprenticeships will continue. What are your comments on the construction industry's view of the current situation? What role do you have to play? What discussions are you having with bodies such as the Scottish construction forum? I am interested to hear what consultation is taking place.

My other point is about skills and training. Jim McColl needs to come to Fife to see the opportunity centres, which are one-stop shops that involve Jobcentre Plus, the careers service and local colleges. They are located in my constituency, in the convener's constituency and throughout Fife. People have found solutions to delivering one-stop advice on education and training. I ask Jim McColl to examine the successful model that is working in Fife.

On the recommendations for higher education, what cognisance did you take of the role of Scottish colleges, which deliver 40 per cent of higher education in Scotland? If we are to have inclusion and to get people on to degree courses, consultation is needed with the Association of Scotland's Colleges and college principals. What consultation have you had? I have not been involved in all the discussions but, after reading the report, I think that the colleges are a huge omission. What are you doing to examine all the education and training that feeds the university sector? To involve local people in areas that have no universities, we rely heavily on further and higher education colleges.

I would like to hear your views on those matters.

Sir George Mathewson: I will start with construction. Our opinion is that infrastructure projects should be brought forward as quickly as possible. We have not had discussions with the construction industry and I do not think that we need to: we can see clearly how severe the problem is.

My personal view—the council has not discussed this—is that it is anomalous to charge zero VAT on new houses but full VAT on repairs, extensions and installation. I do not understand how imposing a 2.5 per cent VAT reduction across the board can ever make a difference, but that is a personal view. The council has not discussed the matter, so I probably should not even have mentioned it, to be honest. However, the point is constructive. I am simply saying that an anomaly exists. We have no argument with bringing forward infrastructure investment as quickly as possible.

Members must remember that we have had only four meetings. We do not pretend to have solved all Scotland's issues and we have not yet discussed the supply side of the educational system—the supply to universities. We have made suggestions about higher education, but we have not looked at other aspects. However, we will do that—it is in the system.

Marilyn Livingstone: If you are considering the higher education system, you cannot ignore Scotland's colleges.

Sir George Mathewson: We are not. There are no plans to ignore them.

Marilyn Livingstone: They are not mentioned.

Sir George Mathewson: It is because we have not considered them yet.

Marilyn Livingstone: But they deliver 40 per cent of Scotland's higher education.

Sir George Mathewson: That is correct. We have not considered them yet. We have considered specifically the problems of the universities rather than the colleges.

Jim McColl: I will respond on the Fife model. I agree that it is working quite well. I have been to see the opportunity centres, and I stress that they represent a major move forward from where we were, but we can make great improvements if we join things up even more. There is wasteful activity, and we could gain significant economic benefits and savings if things were more joined up. Fife has taken a big step forward. Other areas of the country are taking it too, but the civic consortia that are doing well just now could be doing a lot better.

Ms Alexander: I welcome the establishment of the council. I see that others are following suit, which must be a good thing. The opportunity for the council to improve government in Scotland is partly about building a dynamic relationship with Government, not simply publishing an annual report.

As I knew that you were coming, I read the minutes of the council's meeting in June, which state:

"The Council advised the First Minister to:

commission external consultants to conduct an assessment of the costs of various energy options which could then be reported back to the Council".

I wonder whether that matter was reported back on at your October meeting or whether now, in December, you have any idea whether that work has been commissioned.

Sir George Mathewson: First, on the dynamic relationship with Government, there is a balance to be struck between advice and implementation. We are advisers and we do not govern, and it is important that it remains that way. However, we have very open discussions with Government at our meetings, some of which are not minuted, because the ideas fly back and forward, and are contradictory and so on.

The energy study is being commissioned and will be reported on in due course. The concept is to get an independent view. I have found it difficult to gain a real understanding of the comparisons of the different sources of energy. That is what we are setting out to do.

Ms Alexander: That is helpful.

The Convener: Does the Government have an agreed mechanism for responding to the recommendations and considerations in your report?

Sir George Mathewson: Yes. It will respond at our next meeting—our fifth meeting—which will be held on 16 January next year.

The Convener: That is useful to know.

Ms Alexander: On the point that Sir George ended with, which is the availability of data, I was delighted to see the report's recommendations on improving the quality of data on the Scottish economy. Chris Harvie rather stole my thunder on the hyperbole that is deployed in the report. I suppose that I was disappointed that there was no recommendation that the Scottish Government should attempt to provide gross domestic product statistics—albeit, I hope, improved ones—on a comparable timescale to those that are available for the UK as a whole. As the council knows, the data for Scotland lag considerably behind those for the UK.

Also, you made no recommendation that the Scottish Government should attempt to forecast the future performance of the Scottish economy. It is impossible to plan for the future, or indeed to speculate about whether we will perform worse or better than the rest of the UK, if the Government makes no forecasts at its own hand. Has the council taken a view on whether GDP data for Scotland should be produced on the same timescale as that for the rest of the UK, and whether the Scottish Government should develop

some forecasting capacity for the performance of the Scottish economy?

Sir George Mathewson: I will ask John Kay to answer that. As far as forecasting is concerned, you must have today's data before you can forecast the future. The problem is that we do not really have today's data. It is very difficult to get them, because of the interlinking of companies across the border and so on.

Professor Kay: I emphasise what Sir George has just said. It is a mistake for us to attach a lot of weight to, for example, the quarterly GDP data as they are currently presented. We have to go through a much longer process of improving the quality of the underlying data in Scotland before we think about accelerating the provision of GDP information. Forecasting involves various issues, but the basic point is that we need firmer knowledge of the past before we can talk intelligently about the future.

My view, which has achieved substantial agreement in the council, is that we should probably attach more significance to harder economics statistics, such as earnings data, than to speculative GDP data. One can see the difficulties involved in teasing out simply the impact of the tribulations of Scotland's financial sector on the short and long-term measurement of GDP. One also finds questions about the quality of the data on sectors such as catering and tourism, on which it should be a lot easier to get data than on the financial sector.

We have a lot of work to do in Scotland to get the data that we need for the committee and the Government to make the required recommendations and decisions. I hope that we can act as a catalyst in encouraging people to obtain those data.

Christopher Harvie: Postgraduate arms can be twisted.

Ms Alexander: We wish the council luck with that work, because it is long overdue.

It is fair to say that the council's status will rest in part on the extent to which people perceive it to be an independent and relevant voice. I read with some interest Sir George's preface to the annual report, in which he states:

"It is our belief that any conversation on fiscal powers should be undertaken with the clear ambition of making Scotland more internationally competitive."

I could not agree more, so I was somewhat surprised that I struggled to find any mention in the report of the plans for a local income tax.

The local income tax is to be the single greatest fiscal change since devolution. It has generated more responses than any proposal since the smoking ban. The Government is saying that it will produce no figures on the costs to employers of introducing the local income tax until we reach the financial memorandum stage. It is fair to say that the fact that the Government will not even tell employers how much it will cost them to implement the system has generated outrage among them.

Given that background, why is there no mention in the report or the work programme of the impact of Scotland—uniquely among countries in the Organisation for Economic Co-operation and Development—saying that it wants no domestic property taxation and wants to replace it with a supplemental tax on earnings? Why does that not feature, especially given that the preface to the report says, rightly, that the ambition of any conversation on fiscal powers should be to increase international competitiveness?

Sir George Mathewson: To be honest, we have just not discussed it.

Ms Alexander: Has nobody raised it as a relevant issue for the future work programme?

Sir George Mathewson: I feel that it will be in the future work programme, but we have not yet discussed it.

12:00

Ms Alexander: I will leave it at that, although I want to raise another issue in the same vein, which is the independence and relevance of the council's work. I note that, on infrastructure, the report says:

"The erratic management of the overall fiscal position has led to both feasts and famines in the availability of funds to the Scottish Government."

There has certainly been feast, but the Scottish budget has risen every year since devolution, with no famine of any kind at all. One could argue about the merits of the current financing system for Scotland, but when we consider that the receipts to the UK Treasury this year are down by £79 billion on the forecast, and that Scotland's spending has been entirely insulated from that fall in revenues, it seems that the problem with infrastructure spending in Scotland is not famine. There has been no famine at any point during the past 10 years. The balance between current and capital spending is an issue, but choices relating to that reside in Scotland and have to be addressed in Scotland.

Why does the Scottish Futures Trust get but one mention in the entire report? As others have suggested, uncertainty is created when an organisation has no chief executive, has a board to which some appointments have yet to be made,

and has no management statement as to what should guide future infrastructure investment.

When I read an assertion that famine characterises the funding of the Scottish Government, I do not agree with it. People have expressed high hopes that the Scottish Futures Trust will come up with an alternative model of finance, but the report contains no mention of the uncertainty that is created when an organisation is without a chief executive, most of its board, or a statement of funding objectives. Business representatives tell us of that uncertainty, so it would have been helpful if the report had teased out that point more.

Sir George Mathewson: The issue that you raise is an implementation issue rather than a strategic issue. John Kay might amplify this point, but I see the role of the Scottish Futures Trust as being to evaluate and produce different methods of financing infrastructure investment in Scotland. An opportunity exists to create different methods from those that have been used.

Professor Kay: We referred to "feasts and famines", and what you say, Ms Alexander, about the current expenditure of the Scottish Government is right. To put it bluntly, it has been rather generously funded over the period since devolution. The famine is in prospect, rather than in the past. However, you mentioned the balance between current and capital expenditure, and there has been famine in relation to capital expenditure over quite a long period.

I feel—and the council shares the view—that the relationship between current and capital expenditure in the current devolution arrangements will have to be thought through rather more carefully than it may have been at the time of devolution. As we say in the report, we still have a structure that, in effect, treats the Scottish Government as if, for these purposes, it were an English Government department with a mixture of current and capital controls from the UK Treasury. sensible devolution arrangement would inevitably give the Scottish Government more discretion on current and capital expenditure than it has at present.

For the council, all of that is work in progress. We had one substantive discussion on infrastructure issues at our most recent meeting, which has been reflected in our report. Because of the urgency of infrastructure issues, we will have to return to that discussion.

It is clear that not very much has happened so far on the Scottish Futures Trust, but it is a possible mechanism for making progress with infrastructure and other investments. It is not the only possible mechanism, but it should certainly play a role. If we can contribute to putting some drive behind it and other initiatives in the area, we will be doing our job and answering the criticisms that you are making of us.

As Sir George Mathewson has rightly said, implementation is a matter for the Government, not for the council. We can make noises, which is what we are doing, but that is all that our remit permits.

Ms Alexander: I point out-very briefly and in all candour-that those of us who wish you well feel that, as it currently presents itself in Scotland, the famine issue is not to do with underfunding. People have testified to the committee that in each of the past five years, £1 billion was spent on procurement in Scotland, but that figure has now fallen to less than £200 million. Of course, that might change because of some of the capital expenditure that is being brought forward, but the fact is that, as a result, advisory teams have simply left Scotland. That procurement in the market has been reduced to less than a fifth of its level one, two or three years ago is not merely a matter of implementation at our own hand, and over the next year the council could bring its expertise to bear on striking a balance between finding the location of the famine and addressing

Rob Gibson: Given that Government in Scotland is undertaking more and more tasks, and given the public's expectations with regard to the delivery of aspects of the devolved settlement, I am fascinated by paragraph 33 of the executive summary which, as Professor John Kay has noted, says that the fiscal framework of Scottish Government departments

"has not changed since devolution."

Do you think that Government is organised and deployed in a way that best meets the current challenges or do you think that, 10 years on from the creation of the Parliament and the Scottish Government, this is an appropriate time to examine the issue in detail?

Sir George Mathewson: We are not suggesting that there needs to be a revolution; we are simply saying that we should review the current structure for implementing capital expenditure.

Rob Gibson: Have you delved into how the structure of the civil service relates to greener, fairer, healthier, smarter and other objectives as a means of focusing on policies, the delivery of the capital expenditure that you have mentioned, the efficiency of revenue spending and so on?

Sir George Mathewson: No.

Rob Gibson: Do you intend to think about that issue? After all, it opens up the question whether there are other ways of organising the structure of Government.

Professor Kay: The structure of Government and the overall constitutional position are not properly for us to examine. We raised this particular issue to focus on infrastructure and capital spending matters, although it also leads into the nature and implementation of the devolution settlement. The machinery of Government as a whole is neither an issue that falls within the council's remit nor something that I feel competent to discuss.

Rob Gibson: To take a specific example related to the greener, wealthier and smarter objectives, I wonder whether you think that the Government in Scotland could be better organised with regard to, say, devolved powers over the development of electricity infrastructure and power generation. Should number 10 think about giving us more powers over certain elements of those matters?

Sir George Mathewson: We have not reviewed or thought about that, although we might do so at some point.

Rob Gibson: In that case, I merely put the suggestion in your mind.

Professor Kay: It is inevitable that, in the course of our review of energy options, which was discussed earlier, we will review the implications of the regulation of transmission arrangements and perhaps the broader issue of the regulation of electricity and other prices.

Gavin Brown: I was taken by paragraph 8.16, which says:

"The Council believes that the critical question for the Scottish Government is the degree to which current commitments imply future increases in expenditure above the levels implied by current funding."

That led on to the council's consideration—as opposed to recommendation—that

"the Scottish Government should secure independent monitoring of this reporting and of its overall fiscal stance".

Will you elaborate on how you think that that independent monitoring might work in practice? Should the independent monitors have any powers or teeth?

Sir George Mathewson: I do not believe that we can discuss that in detail; we have put forward a principle.

Gavin Brown: You have put forward a principle, but you have no specific ideas about how it might work in practice. I am referring to your second consideration in paragraph 8.22 on page 53.

Sir George Mathewson: We asked the Government to consider that proposal.

Gavin Brown: So it had not been discussed in any detail.

Sir George Mathewson: No.

Gavin Brown: Recommendation 20, which is on the same page, states:

"the Council would like the Scottish Government to explore the possibility of new means of borrowing, outside PFI, to help finance public sector infrastructure."

Specific reference is made to the Scottish Futures Trust elsewhere in the text. Does the Council of Economic Advisers have a view on how quickly progress needs to be made on the SFT, given some of the discussions that we have had so far?

Sir George Mathewson: We would like progress to be made as quickly as possible. That would always be our view.

Gavin Brown: Okay.

I return to your final recommendation on statistics, which has already been mentioned. You say that although GDP is an important piece of the jigsaw, it should not make up the entire jigsaw. You recommend that the Government should consider other measures. If you had a blank sheet of paper, what specific measures would you recommend that the Government should consider first when judging our overall economic performance?

Sir George Mathewson: John Kay made a point about the use of income rather than gross national product as a measure.

Gavin Brown: Do you have any other specific examples?

Professor Kay: We are in a strange position. If Scotland were an independent country that had its own independent statistics office, it would naturally produce GDP figures for Scotland using the United Nations system of national accounts, which is used by all countries around the world. Intriguingly, because we are not in that position, we could in some ways have more freedom.

Comparability considerations are powerful reasons for all countries to adopt that structure, but given the context in which we operate, I am inclined to think that perhaps we should put less emphasis on GDP because, in truth, if one could revisit the set of statistical conventions, one would probably not start from the same place. I am talking about a system that can be thought of as much more of a management information system that is about generating for the Scottish Government the data that are most relevant to Scottish Government decisions. I suspect that GDP is probably not that. That is why I would like us to focus rather more on some of the hard data that I have described, such as those that show what is happening to earnings or in individual sectors. If we had a better handle on microeconomic issues, we would have a better understanding of what is happening in financial services, on which the picture is, frankly, a bit of a mess. We have aggregate figures for the UK, which are not terribly meaningful in themselves, which are then disaggregated in rather arbitrary ways to generate data for Scotland. One feels that rather thin cards are being piled on top of the already rather thin cards of the existing data. Understanding the microeconomics of what is happening in Scotland's financial services sector might be a better way to proceed.

Similarly, we could consider the other sectors that I have mentioned on which we have queries about the data, for example we could understand better, at a more micro level, what is going on in catering and tourism. I hope that that will be part of the work of the council over time, and that, as we consider those individual sectors, we will generate a variety of indicators and data that fulfil a management information systems function and enable the Scottish Government and this committee to do their jobs more effectively.

12:15

Sir George Mathewson: There are numbers that would be far more meaningful.

Dave Thompson: Professor Kay has just answered one of my questions. That is one of the problems of being at the end of the queue. I need to get my hand up really early in future.

First, given what has just been said, does the panel think that it would be a good thing if we had a strong, independent Scottish statistical service that produced all the data that we need?

Secondly, I would like to elaborate a wee bit on PFI/PPP and its replacement by the SFT. What Wendy Alexander said is true. PFI projects have dropped from about £1 billion to £200 million. Of course, about £14 billion of other capital projects are going on in Scotland outwith PFI/PPP. What is your view about the change in the accounting rules that will come into play next year, which will force all that sort of borrowing to go on the books? How important will that be in pushing the Scottish Government and the UK Government into different forms of borrowing? How will it change things?

Sir George Mathewson: I mentioned that to John Kay this morning before the meeting. He made the point that, previously, the Government had to some extent been complicit in schemes that took liabilities off the national balance sheet, although there was clearly an on-going liability in many PFI schemes. The accounting profession appears to have caught up, in the national situation, with where it got to some time ago in the commercial situation.

John Kay made the point that the national balance sheet is all to pot at the moment anyway, because of the rather extreme conditions that the world is under. That applies not only to the UK balance sheet but to everybody's balance sheet, so the situation might be less significant than it would have been. However, while PFI has improved the deliverability of some projects, it has resulted in extensive long-term liabilities for the Government that might have been less if the Government had indulged in simple borrowing. There is no real difference between a liability on PFI and a liability on borrowing.

We should focus on the reality of the situation rather than the cosmetics. I am not sure whether the accounting thing will make all that much difference. However, on pure cost to the taxpayer, PFI has so far not been the best solution. We must ensure that any further solutions improve the deliverability and management of projects.

Professor Kay: I do not have much to add to those basic points. I would simply pick up the point that Gavin Brown raised earlier, when he quoted the recommendation that we should look to the implications of current activities and projects for future expenditure and tax levels. That is a far more important thing for us to focus on than a notional figure for what a national balance sheet looks like. Indeed, if we had focused on that right from the beginning, we would not have had the enthusiasm for PFI that was generated and we would have been clearer about the implications of PFI for future expenditure levels in Scotland.

As Sir George Mathewson said, the balance sheet issue has been blown out of the water by the various other events that have happened in the past year anyway. However, if events have one other lesson for us all, it is that such complex and ostensibly clever financing packages were not quite as clever as people tended to think they were. That is even more relevant to how the Government finances itself than it is to the private sector. As George Mathewson mentioned at the beginning, the gap between Government borrowing costs and the costs of more complex financial arrangements is bigger than it has been for a very long time. We should take advantage of that.

Ms Alexander: As we are entering a period in which public spending growth will inevitably be more constrained, the temptation to focus on current rather than capital spend will be more intense than it has perhaps been for a decade. Just this afternoon, the Parliament will discuss its strategic transport projects review. I hesitate to guess, but probably more than three quarters of the financial liabilities that are associated with those projects will fall to be due after the end of this parliamentary session. That creates all sorts of perverse incentives for politicians of all sorts.

Whatever we do with the balance between current and capital spend, we are likely to continue

to have a comprehensive spending review programme that runs over three years. Most long-term infrastructure liabilities fall well beyond that time horizon. It would be immensely helpful if the council could think in a little more detail about the recommendation on accounting for

"the implications of current decisions for future spending",

so that one was clear about the profile of spending and acknowledged when that became due for the Southern general, which will be the second-largest hospital in western Europe; the Forth bridge, which is the most significant infrastructure project; or the upgrading of the A9.

I note in passing that it has not historically been in the interests of politicians or officials for such long-term profiled spending commitments to be laid out. However, that is undoubtedly in the Scottish economy's interests as a whole. Precision on that in the next two years would be hugely valuable.

Professor Kay: That is exactly what was in our minds for the recommendation on independent monitoring that Mr Brown mentioned.

Sir George Mathewson: Such a practice is not in the interests of politicians and officials, but what has happened has not been in the interests of the quality of projects. A tension has always existed with a politician's decisions in their period of office. Our motorway system has suffered from that over the years. People have said, "Just get it built, guys—we don't care how many cars will go down it 10 years from now." The issue is not new. The council and I agree totally with what has been said.

Lewis Macdonald: Sir George Mathewson said a moment ago that no real difference existed in the cost to the taxpayer between PFI and borrowing—

Sir George Mathewson: No—I did not. A difference exists. One can argue about risk sharing, but in most cases, a risk was not involved and the Government gave an implied guarantee. In those cases, the cost to the taxpayer of a PFI solution was higher than that of a borrowing solution.

Lewis Macdonald: On the same basis, does any difference exist between the current PFI model and the non-profit-distributing model, which is operating in one or two places and is the basis for the Scottish Futures Trust?

Sir George Mathewson: I think so. I understand that the Scottish Futures Trust has not embraced a single model and that we will judge various solutions, one of which is the model that you named, on their long-term cost to the taxpayer and on effective project management. We need to take steps to ensure an effective project management system in the public sector.

Lewis Macdonald: Are you saying that we should disregard the suggestion that has been made in the Parliament that the Scottish Futures Trust's primary funding mechanism will be the non-profit-distributing model?

Sir George Mathewson: I ask John Kay to answer, but I see no limitation.

Professor Kay: The Scottish Futures Trust could not meet the objectives of our recommendations in the area by using an NPD model alone. We are clear about that. As we see it, the weaknesses of PFI are that it has been expensive and inflexible and, least obvious but most important, it has not contributed to the development of better project management skills in the public sector. Public sector skills have been focused on the complex financing packages, rather than on the management of the project. Our hope is that an SFT or other arrangement that can be put in place to better manage infrastructure projects will achieve all three objectives. The NPD model does not take us far down any of those roads. In that sense, it is a rather minor twist on the existing PFI model.

Lewis Macdonald: I am interested in recommendation 20, which is that Government

"explores the possibility of new means of borrowing ... to help finance public sector infrastructure."

It seems from the evidence that you have given us this morning that implicit in that recommendation is the idea that the Government should not continue to pursue the private finance initiative. We have heard from witnesses from the business community that the difficulty is that, in the absence of an alternative, nothing is being done. Are you advising Government not to pursue the existing model? Does it trouble you that a consequence of that might be that no new infrastructure projects are developed?

Sir George Mathewson: It would trouble me if that were a consequence of the advice, but I do not believe that it is. If no new projects are being developed, that might be the consequence of Government's views, but not of our advice.

Lewis Macdonald: When you advise on such matters, do you take cognisance of the views of the construction and development sectors and of those whose business it is to carry forward projects of that kind?

Sir George Mathewson: We have had no consultations with the construction sector.

Lewis Macdonald: Do you envisage consulting it, given the current economic circumstances?

Sir George Mathewson: I envisage the Scottish Futures Trust doing that; I am not sure that it is our role to do it.

Lewis Macdonald: I return to a point that was made earlier. I think that you said that you envisaged looking at local income tax and its impact on competitiveness.

Sir George Mathewson: I said that we would do so, if that were possible.

Lewis Macdonald: Will you determine that matter around the table, or will you consult ministers or external bodies?

Sir George Mathewson: Primarily around the table, but we then consult ministers. There has never been any issue about what we look at; questions have never been asked about why we are or are not looking at something.

Lewis Macdonald: If, for example, the business community felt that the impact on competitiveness of the local income tax would be a valid area to which your collective expertise might be applied, would you take seriously any approach from it?

Sir George Mathewson: We would take it seriously, as we take seriously any approach from anybody.

Lewis Macdonald: That is helpful. To help me better understand that point, when you say that you would take seriously any approach from anybody, has much contact been initiated by others—for example, the business community or other players in the economy?

Sir George Mathewson: No, not really.

Lewis Macdonald: There has not been much engagement with the trade unions, the business community or the banking sector.

Sir George Mathewson: No. In a way, we are trying to take an independent view. If you get involved with the various trade bodies and so on, you find that they all have—quite correctly—their own points of view. We try to stand back from that to come up with as good an independent view as we can.

Lewis Macdonald: I have one specific question about that: do you engage with the national economic forum, which has a range of stakeholders and which Government supports?

Sir George Mathewson: We do not engage with it, but I know what its role is.

12:30

The Convener: I will ask one final question, on university funding. In recommendation 17 of the report, and in the considerations listed in paragraph 7.17, you stress the need to consider increased contributions from a number of stakeholders, including students. In the third consideration, you ask the Government to

"explore how to encourage higher education students to develop positive attitudes towards investing in their own education, building on the principle that the greater the level of personal investment they make, the more focused and effective the educational outcomes will be".

Does that mean that you would ask any Government to consider the reintroduction of tuition fees?

Sir George Mathewson: No, it does not, actually. Certainly not necessarily. However, I feel—and I think that the council as a whole felt the same—that investment in education is not just about money. There is also investment of time and effort.

I lived for a while in the United States, and it seemed to me that the professionals there invested more of their own time in pursuing their subjects than currently happens in the United Kingdom. What we are saying in the report is that we must all value education. Just because we do not have fees, it should not mean that we devalue education. I am not certain that everybody in Scotland puts the same value on education as they used to. The importance of education to individuals cannot be overrated.

What we are saying is that nothing is out of consideration.

The Convener: So there could be a financial contribution from students for their own—

Sir George Mathewson: No, I think-

The Convener: I am just trying to clarify what is meant by the recommendation.

Sir George Mathewson: I know that the political arguments have focused on student fees and on whether funding could involve some contribution from students. I do not know. What we are saying is that we have to ensure, through all our measures, that people value their education and consider it a great thing in their lives and a great gain for them.

The Convener: I do not think that anyone would dispute that philosophy, but I am just trying to clarify what the recommendation and the considerations in the report actually mean, so that the committee can understand.

Christopher Harvie: As Sir Lyon Playfair said in about 1869, an education at Oxford or Cambridge would cost a student £10,000 for his time there, and an education at a Scottish university would enable him to earn £10,000.

The Convener: Times have perhaps moved on.

As there are no further questions, I thank Sir George Mathewson, Jim McColl and Professor Kay for coming to the committee today. It has been a useful opportunity to get clarification on some of the details of your report, and I am sure

that the committee will seek a copy of the First Minister's response to your recommendations and considerations, so that we can give our thoughts.

12:33

Meeting suspended.

12:36
On resuming—

Energy Inquiry

The Convener: We need to crack on, as I know that members have other business that they want to get through at lunch time. Item 2 is consideration of an initial approach paper by the clerks on the next stage of our energy inquiry. It would be useful if members could identify any specific issues that they want to be included in stage 2 of the inquiry. Quite a number of issues have been picked up-for example, it is extremely important that we consider how energy demand can be reduced. I certainly recommend that we hold evidence sessions on the issues that the paper identifies. Connectivity to the grid has come up frequently in our three round-table discussions, and we have already obtained agreement from the chief executive of Ofgem to give evidence on that. Other witnesses will be involved in that session. too. If there are any other issues that are not covered in the paper that members want to highlight, I invite them to do so quickly.

Gavin Brown: Jason Ormiston's suggestion of a session specifically on heat is an excellent idea. The committee could drive that issue forward because, at the moment, it is the ugly sister; it needs to be much higher up the agenda.

Rob Gibson: Cinders comes to mind. Will we visit a combined heat and power plant?

The Convener: Possibly. It is possible that we might be able to fit in such a visit, especially on one of our overseas visits.

Lewis Macdonald: If it is helpful, I can recommend some excellent combined heat and power plants in my constituency. I know that Aberdeen is on your list of potential destinations.

The Convener: We certainly intend to go to Aberdeen for a committee hearing on the oil and gas industry, and it might be possible to fit in additional visits around that.

Rob Gibson: We are talking about going to Brussels. Would the committee be able to take evidence in Brussels?

The Convener: The rule is that we cannot take evidence formally outwith Scotland, but we can do so informally. If we go to Brussels, it is certainly my intention that we meet the European Commission and others to discuss energy policy. If there are specific organisations that members would like us to meet in Brussels, please pass that information on to the clerks.

Rob Gibson: Combined heat and power plants are prevalent on the continent, and there is

interest in international grids, which are a key issue, as is Scotland's relationship to the ability of the UK and Europe to meet the 2020 targets.

Lewis Macdonald: If I heard Rob Gibson correctly, he is right that one of the key recommendations that we should consider is about the grid. We should certainly take evidence both on projects that are in play and on potential future connections to the grid.

Ms Alexander: We know what needs to happen on the grid and on planning and that it all needs to be in our report. Europe is ahead of us, however, on energy and heat, so those are the two areas that commend themselves for examination during our overseas visits. If we are going to Scandinavia, or elsewhere in Europe, I am particularly interested in focusing on those two issues, on which we have the furthest to travel and the best lessons to learn.

The Convener: We are investigating several options, but the best one looks like going to Copenhagen. There are some combined heat and power projects in Copenhagen city, and we would also have the opportunity of going across the bridge to Sweden to take in some of the Swedish projects.

Lewis Macdonald: Carbon capture and storage could also be considered—northern Germany is the best for that.

The Convener: Yes, there is a plant there. I know that a company is keen to facilitate our European visits, so it might be able to provide some help. It has some interests in the countries in which we are interested.

Lewis Macdonald: I commend paragraph 5 of the clerk's paper as it recognises that we need some structure to the next stage of our inquiry. It offers a structure that allows us to recognise when we have different views and how we can fit the issues into the wider picture.

The Convener: Wendy Alexander made a key point during the round-table discussion. Our job is not to say that we need a nuclear power plant or wind farm in one place but not another; it is to map our progress and say specifically what the Scottish Parliament and Scottish Government should be doing over the next three, four or five years to get us moving in the right direction. That should be the focus. The more detailed evidence should be on pinning down the decisions that need to be taken and what we should be doing over the next three to five years.

Lewis Macdonald: That is helpful, and we are working in the context of the 2020 targets.

The Convener: The context is the direction of travel for 2050—not 2020—and what we need to do.

Ms Alexander: I am thinking about the legislative timetable. We could add some real value by making specific proposals for the next three or four years, but I am aware that two things are already in the parliamentary timetable. One is secondary legislation and on-going discussions on planning, and the other is the parliamentary consideration of the Climate Change (Scotland) Bill.

It sounds as if Stephen Imrie is doing this, but it would be good if, between now and our meeting on 14 January, the clerks to this committee held discussions with the clerks who are likely to service those processes. We could see whether the parliamentary timetables are sufficiently in sync so that we can feed into the consideration of the bill and address some of the issues that we raise in our final report.

The Convener: Those discussions are ongoing, and we have indicated that we would be interested in being a secondary committee on the bill. If there are specific issues on which we want to take evidence or even if we want just to make known our views as a result of what we already know, we will be able to do that.

Dave Thompson: The main thing is to resist the temptation to do too much. We need to focus on a handful of issues on which we can do some work and make recommendations that will make a difference. It would be far too easy for us to let the inquiry grow out of all proportion. There is so much that we could look at.

Lewis Macdonald: Would it be helpful for us to continue the dialogue with the clerks between now and the next meeting?

The Convener: Absolutely. If any member has additional points to make to the clerks after they have had time to reflect—and allowing for the two visits that we are to make before 14 January—they should feed them in. Obviously, the earlier that the clerks receive the information, the easier it will be for it to be incorporated and background work to be done on visits.

Are members content with the paper as presented, considering the comments that have been made?

Members indicated agreement.

The Convener: Let me remind members that the next stage of the inquiry involves the visits to Torness next Wednesday and to Braes of Doune wind farm project on 7 January.

National Planning Framework

12:45

The Convener: Item 4 is an approach paper on the national planning framework. We are considering the paper before the national planning framework has been published, so we are working based on guesswork a little, although we are fairly sure that the national planning framework 2 will be published tomorrow. Had we waited, we would not have had time to consider our approach before our Christmas recess, which could delay too much the process into which we need to feed.

The lead committee is the Local Government and Communities Committee: we are a secondary committee. The suggestion is that we will take evidence on economic development aspects and energy issues and it is proposed that we hear from two panels at our meeting on 14 January. The suggested witnesses are in the paper. Are members content with that approach? Do you have other suggestions?

Lewis Macdonald: I simply have a question. Is Ofgem relevant to panel 2?

The Convener: Ofgem will give evidence to the committee on 10 February—

Lewis Macdonald: That will be on a different matter.

The Convener: I suspect that the proposed panel is sufficient and I am not sure whether we need Ofgem.

Lewis Macdonald: I simply look for guidance—I do not know. I presume that Ofgem regulates connection to the grid.

The Convener: I am not sure.

Stephen Imrie (Clerk): To a degree, Ofgem is relevant to the process, but its primary interest is in transmission charging. The committee is primarily considering consenting and planning, in which Ofgem is less of a key player. As the convener said, Ofgem's chief executive still plans to appear before the committee on 10 February. That is consistent with the overall timetable for consideration of the national planning framework. If we start to count the 60 days from the end of this week, Parliament must complete consideration of the NPF by 6 March. That means that the committee could still make further views known to Parliament if anything that was specific to Ofgem arose.

Lewis Macdonald: I know from dealing with regulatory matters that we would not want the answer from the panel to a question to be that the matter was not for any of the companies that were represented.

The Convener: We will check. If Ofgem can send somebody along and its doing so will be useful, we will arrange that. The trouble is that the Christmas recess makes the timetable tight for consulting various groups.

Ms Alexander: I will raise an associated issue. Forgive me—others might have read the minutiae of what Stephen Imrie circulated on the guidance on thermal power generation. We heard today that the section 36 process involves two aspects—one is carbon capture and the other relates to heat. The matter is largely tangential to the national planning framework, but could somebody in the Scottish Parliament information centre do a brief note on that for us, so that we do not lose the issue about what the guidance says and what we might recommend?

The Convener: I have asked the minister to keep the committee informed of what is happening with that consultation.

Ms Alexander: When that arrives, it will no doubt be impenetrable to read, but some worthy person in SPICe could summarise briefly whether the situation is developing.

The Convener: The SPICe researcher looks really enthusiastic about the prospect of providing us with a note on the matter.

Dave Thompson: Could Community Energy Scotland attend as part of panel 1? It deals with small-scale community energy, but it raised several issues about grid connection for community energy schemes.

The Convener: I am sorry—do you mean panel 2?

Dave Thompson: Community Energy Scotland could be part of either panel.

The Convener: I am concerned about our restricted time. When panels are too big, they become unmanageable. We must be careful about that.

Rob Gibson: Do we need to hear from the Beauly-Denny landscape group?

The Convener: The aim is to provide an alternative to views on how the new planning framework should operate. It would be remiss of the committee to take evidence from only one side of the argument.

Lewis Macdonald: I am sorry, convener—I did not quite catch that. The Beauly-Denny landscape group has a view on the landscape between Beauly and Denny. The question is whether it is the relevant alternative voice on electricity and energy needs and on whether such projects should be a national priority. The group might have a view on the proposed development—

Rob Gibson: You took the words out of my mouth.

The Convener: The Beauly-Denny landscape group has an interest in one of the schemes that we think will be part of the national planning framework document. We felt that it would be appropriate to hear an alternative to the view that is likely to be presented by Scottish and Southern Energy, Scottish Power and National Grid on the aspects that should be taken into account. We must hear contrasting views.

Lewis Macdonald: Does the group include local authority and other organisations that have objected to the development?

Stephen Imrie: I do not believe that the group includes local authorities as such; it is an umbrella body for non-governmental organisations and environmental organisations such as the John Muir Trust, RSPB Scotland and others that have been vocal about the Beauly to Denny power line.

Rob Gibson: We are attempting to consider what is in the planning framework, not to rerun the inquiry into the line.

The Convener: I quite agree, and that point will be made clear to the people who give evidence. We will not be rerunning the inquiry; we will be considering how the national planning framework will deal with energy projects. I will certainly rule out any attempts by witnesses to rerun the inquiry into the specifics of this particular scheme. However, we will have to hear from people with experience of schemes, and get their views on how the national planning framework will operate, which is why we have to invite a group such as the Beauly-Denny landscape group, which is an umbrella organisation.

Dave Thompson: I would like to press a point about Community Energy Scotland, which is a new body for the whole of Scotland.

The Convener: We have not ruled that body out, but we have to consider the time that will be required to take evidence, and whether anyone will be available.

Dave Thompson: I accept what you say about the Beauly-Denny landscape group and about how you will rule certain questions out of order, but I would be amazed if the group did not make serious attempts to get stuck in.

The Convener: I am sure that it will.

Dave Thompson: Is having the group on the panel wise if it could disrupt the whole meeting?

The Convener: The committee has a responsibility to take a balanced view. An argument could be made that we do not need to invite all the power organisations. We might ask Scottish Power and Scottish and Southern Energy

to agree that one or other of them could present their point of view. That would reduce the number of panellists, which might be helpful.

However, we also need an organisation to present the other side of the argument—as long as it understands that we are considering not the merits of the Beauly to Denny line or the inquiry, but how such schemes would come into the national planning framework.

Ms Alexander: I agree. I also generally agree with having round-table discussions, but with the national planning framework document we have one group of people who say that it should go further because it does not go far enough for them to get consents through—the energy companies and another group of people who say that it goes too far and who want local views to prevail. So that our recommendations can be clear, we need two panels. We have to ask people, "Are you happy or are you not?" That will allow us to get clear views on the published document. We should not have a woolly round table at which people pretend to agree. The fundamental question for us is which side of the argument the document should come down on.

The Convener: If the committee would prefer to have two separate panels, that is easily done. The meeting would probably be slightly longer.

Ms Alexander: We would need self-discipline. Two panels would give us clarity. We could say to the first one, "Has it gone far enough?" And we could say to the second one, "Where has it gone too far?" The committee could then adjudicate.

Rob Gibson: I believe that the Beauly to Denny line is not in NPF 2.

The Convener: We do not know.

Rob Gibson: We do not know? So, having a specific group on the Beauly to Denny line—

Ms Alexander: I still think that we should split the witnesses. There will be a constituency in Scotland that thinks that power should remain local, and then there will be the energy companies which will say that we need to consider national priorities. We should be honest about separating the two issues, because we have to reach a judgment on whether the NPF gets the balance right.

The Convener: The national planning framework will be published tomorrow, so we will reconsider panels in the light of the framework and assess whether any of the proposed witnesses are not relevant to what we want to consider. The committee can leave it to the clerks and me to do that.

Lewis Macdonald: If it turns out that Rob Gibson is well informed, then clearly we may have

a meeting on why the Beauly to Denny line should be in the national planning framework.

The Convener: It might just be that where the Beauly to Denny line was in the system meant that it was too late to put it in the national planning framework. I do not know. However, we will find out tomorrow when the framework is published. Do members agree with the proposal, subject to changes being made to it following consultation between me and the clerk after the planning framework is published?

Members indicated agreement.

Credit Crisis and Banking Reform (House of Commons Committees)

meeting on 14 January. Obviously, we have two visits to make before then.

Meeting closed at 12:57.

12:55

The Convener: As agreed at a previous meeting, we keep a watching brief on issues relating to the economy and the banking crisis. As members will probably be aware, two House of Commons select committees have been considering the issue. The Treasury Select Committee has been conducting an inquiry into the banking crisis. That inquiry will recommence in January. The Scottish Affairs Committee is this week taking evidence on the economy.

We will keep a watching brief on those committees' work. I suggest that we hold our own hearing, on 21 January with the witnesses as proposed in the briefing paper before us, to get an update on how the economy is playing, with particular emphasis on how the crisis affects small and medium-sized enterprises, which have been hit particularly by issues in relation to cash flow. Are members content with that proposal?

Gavin Brown: As well as inviting witnesses from the trade organisations, we could invite people who run businesses.

The Convener: I assumed that the trade organisations would include members who run businesses.

Gavin Brown: Yes, but the organisations might send only the policy officer to the hearing. That would of course be helpful, but we should also have one or two people who run businesses to complement that.

The Convener: It depends on how big we think the panel should be and how we select the business people. We could suggest to the Federation of Small Businesses in Scotland and Scotlish Chambers of Commerce that they bring at least one businessman with them and not just a policy officer.

Lewis Macdonald: It is important that we hear from the relevant people. However, if we are having a single-focus hearing, it is important that we do not have a plethora of witnesses. We should try to restrict the numbers to the suggestion in the briefing paper.

The Convener: Are members content with the proposal to have a hearing?

Members indicated agreement.

The Convener: Thank you. That concludes our final meeting of this year. I wish you all a merry Christmas. We will see you at the next formal

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