ECONOMY, ENERGY AND TOURISM COMMITTEE

Monday 2 March 2009

Session 3

£5.00

Produced and published in Scotland on behalf of the Scottish Parliamentary Corporate Body by RR Donnelley.

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ECONOMY, ENERGY AND TOURISM COMMITTEE
7th Meeting 2009, Session 3

CONVENER

*Iain Smith (North East Fife) (LD)

DEPUTY CONVENER

*Rob Gibson (Highlands and Islands) (SNP)

COMMITTEE MEMBERS

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

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)

*attended

THE FOLLOWING ALSO ATTENDED:

Brian Adam (Aberdeen North) (SNP)

THE FOLLOWING GAVE EVIDENCE:

Mike Bowyer (Halliburton)
David Doig (OPITO—The Oil & Gas Academy)
Bob Keiller (Production Services Network)
Professor Alexander Kemp (University of Aberdeen)
Archie Kennedy (ConocoPhillips (UK))
Brian Nixon (Scottish Enterprise)
Professor Peter Robertson (Robert Gordon University)
Geoff Runcie (Aberdeen and Grampian Chamber of Commerce)
Iain Todd (Aberdeen Renewable Energy Group)
Malcolm Webb (Oil & Gas UK)

CLERK TO THE COMMITTEE

Stephen Imrie

SENIOR ASSISTANT CLERK

Katy Orr

ASSISTANT CLERK

Gail Grant

LOCATION

Council Chamber, Aberdeen City Council

Scottish Parliament

Economy, Energy and Tourism Committee

Monday 2 March 2009

[THE CONVENER *opened the meeting at 13:32*]

Energy Inquiry

The Convener (Iain Smith): Good afternoon, everyone, and welcome to the seventh meeting of the Economy, Energy and Tourism Committee in 2009. I welcome the committee to Aberdeen for our second visit. This is one of the rare occasions when the committee meets outwith Edinburgh—in fact, it is only the second occasion, and both times we have met in Aberdeen, so the city must have done something right last time that made us want to come back so soon.

I thank Aberdeen City Council for its assistance in making arrangements to host the meeting today, and I welcome our many guests who are here to give evidence. For the record, there are two substitute members of the committee with us today: Alex Johnstone, who is substituting for Gavin Brown, and Nigel Don, who is substituting for Christopher Harvie. We also have with us a guest member of the Scottish Parliament, Brian Adam, who is welcome to participate in the meeting.

I ask everyone around the table to introduce themselves briefly, and we will then open up the round-table session, which should be reasonably free flowing. People should indicate to me if they wish to contribute to any part of the discussion.

I will start by introducing myself. I am the convener of the committee and the Liberal Democrat member for North East Fife.

Professor Alexander Kemp (University of Aberdeen): I am professor of petroleum economics at the University of Aberdeen.

Ms Wendy Alexander (Paisley North) (Lab): I am a member of the committee and MSP for Paisley North.

Mike Bowyer (Halliburton): I am a director with Halliburton.

Malcolm Webb (Oil & Gas UK): I am chief executive of Oil & Gas UK.

Lewis Macdonald (Aberdeen Central) (Lab): I am a member of the committee and MSP for Aberdeen Central.

Iain Todd (Aberdeen Renewable Energy Group): I am renewables champion with Aberdeen Renewable Energy Group.

Bob Keiller (Production Services Network): I am chief executive of Production Services Network.

Nigel Don (North East Scotland) (SNP): I am an MSP for North East Scotland.

Brian Nixon (Scottish Enterprise): I am the director of energy with Scottish Enterprise.

Alex Johnstone (North East Scotland) (Con): I am an MSP for North East Scotland and a substitute member of the committee.

Archie Kennedy (ConocoPhillips (UK)): I am managing director of ConocoPhillips (UK) and a co-chair of Oil & Gas UK.

Brian Adam (Aberdeen North) (SNP): I am Scottish National Party MSP for Aberdeen North.

Professor Peter Robertson (Robert Gordon University): I am vice-principal and pro vice-chancellor for research at Robert Gordon University, and a director of Aberdeen Renewable Energy Group.

David Doig (OPITO—The Oil & Gas Academy): I am chief executive of OPITO—The Oil & Gas Academy.

Marilyn Livingstone (Kirkcaldy) (Lab): I am a member of the committee and MSP for Kirkcaldy.

Geoff Runcie (Aberdeen and Grampian Chamber of Commerce): Good afternoon. I am the chief executive of Aberdeen and Grampian Chamber of Commerce.

Rob Gibson (Highlands and Islands) (SNP): I am deputy convener of the committee and an MSP for the Highlands and Islands.

The Convener: Thank you. This round-table discussion is part of the committee's inquiry into Scotland's future energy needs. Obviously, oil and gas and, indeed, offshore renewables are key parts of the inquiry. I ask Malcolm Webb to kick off with an outline of what he thinks are the main issues facing the oil and gas industry, and what recommendations the committee should consider making as we conclude our extensive inquiry over the next few weeks and months.

Malcolm Webb: I did not realise that I was supposed to give recommendations at the end, but I will try my best. It is laudable that the committee is here to talk about oil and gas because they will form an incredibly important part of the energy future of Scotland and the United Kingdom. In 2020, when we achieve all the targets that the Government has set on renewables, as I hope we do, we will still rely on oil and gas for 70 per cent of our primary energy needs. It is therefore hugely important that we make a success of the undertaking.

I stress, though, that this is not just a production story, as important as that is. We believe that 25 billion barrels of oil and gas are yet to be got from the UK's offshore areas, which is about 40 per cent of what was originally there. There is therefore a huge prize to be got and it is important that we do everything that we can to maximise that ultimate recovery. However, besides that production story, there is an incredible engineering success story and an incredible story about the supply chain hub that has been built up in the UK—indeed, let us not mince our words, in the north-east. This is the central part of our being in the UK as far as the engineering success story and the offshore oil and gas industry are concerned.

It is a remarkable undertaking. The supply hub not only provides £13 billion or so a year of support to UK industry but exports about £6 billion a year of oilfield goods and services, which have a tremendous potential for growth. Indeed, although we believe that we can produce oil and gas in reasonable quantities from the UK for the next 20, 30 or 40 years, there is tremendous potential for the excellent supply chain to grow and ultimately become an even bigger wealth creator for the country. The International Energy Agency points out that the oil and gas industry around the world will spend more than $9 trillion on oil and gas investments up to 2030. I do not suggest that that will all go to the offshore oil and gas industry in the UK, but it is a sizeable market that Scotland and the UK need to get after.

If the committee will forgive me for saying so, the arbiters of several issues that we face on the production side, which are to do with the regulatory and fiscal frameworks, are in Westminster, but you can be assured that we are engaged with our friends in Westminster on that. However, as far as the tremendous success story on our doorstep here in the north-east is concerned, Aberdeen City Council, Aberdeenshire Council and the Scottish Government must play their part in helping us to raise the industry's profile and help it to develop and prosper. I hope that we can touch on some of those issues this afternoon.

The oil and gas industry, along with the rest of British industry, is of course facing interesting times. There is the double whammy of the banking crisis and the global recession hitting us. We must all bear in mind how imperative it is that we get through the downturn as unscathed as we reasonably can so that we can reap the rewards of what comes afterwards. That is hugely important in a national context. I repeat that it is massively important that we maximise the recovery of the remaining oil and gas reserves.

It is also important that we have a strong supply chain and that we continue to grow the hub in the north-east so that it is a global competitor in the massive market in world oil and gas production. That market will be there for many decades, if not for hundreds of years.

The Convener: Thank you for that very useful introduction. Some of us do not understand the industry as well as our colleagues from the north-east do. It seems to me, looking at it from the outside, that the industry requires fairly massive investment and that there will be a long payback period before that investment is seen to have been worth while. However, investment seems to be driven by a commodity price that is extremely volatile. How can you square a volatile commodity price with a long-term investment strategy?

Malcolm Webb: To a large degree, the industry seeks to invest for the long term. Right now, we are facing peculiar challenges that we have not faced in previous challenges. The prices of oil and gas are low at the moment, and that presents immediate challenges—especially as cost inflation has been quite high over the past four years. Actually, it has been high for longer than that. We have high costs and low product price, and that is causing one problem. Another problem, which is biting at small and medium-sized companies in particular, is the absence of capital. The equity markets have dried up entirely and the debt markets are severely constrained, so that is putting another squeeze on the industry. The industry is having to live off its cash flows and, with the future as uncertain as it seems, that is understandably driving conservative attitudes among companies. All in all, this is a particularly difficult time for the industry.

The industry is good at managing risk and considering the long term. However, some particularly sharp problems are bearing down on us at the moment. Some prompt action will be necessary if we are to mitigate the worst effects, so that we can emerge in a strong position in the long term. I assure the committee that the industry is not looking only to the Government for that action. We are engaged in self-help measures; we are trying to ensure that we do everything that we can within the industry, and that we do not just ask for Government help. We are not asking for big Government bail-outs, because we know that they cannot be forthcoming at this time.

The Convener: Before I open up the discussion to others, I will say that, although the committee's report will be on issues that come within the remit of the Scottish Government and Scottish Parliament, we will be able to highlight issues that we think the Westminster Government may wish to address. Contributors should therefore not feel constrained in mentioning any issues that they feel

are of concern. We expect that Westminster will be looking at our report as well.

Lewis Macdonald: I would be interested in hearing comments on the short-term challenges and opportunities. The issue of the price of oil has been raised. The price is a lot lower than it was nine months ago. Nevertheless, as long as we are talking about a price of $30 or $40 a barrel, we are not in the same waters that we were in during the previous oil recession in 1998-99, or 20 years ago, when the price was very low indeed. To what extent is the price of oil inhibiting investment? How will investment be affected in the immediate period?

A counter-current was evident in the figures that were published this morning on export earnings. The figures suggest that that side of the industry is doing better than ever. How do our colleagues from the oil and gas sector understand those figures? Are they comforting, or do they give a false sense that the global market is going in our favour?

13:45

Mike Bowyer: There are fairly significant differences this time round, as things have changed over time. Quite a few of the players who are around today are different from the players who generated much of the activity during the previous recession. There has been an influx of new players into the maturing North Sea market, and those players have become a significant part of the activity. To a large extent, those medium-sized and smaller players have been most affected by what has been going on the financial markets, although everyone has been affected—I am sure that Archie Kennedy and others will comment on that. This time round, it is not just about the oil and gas pricing cycles.

From a contractor's perspective, looking back to previous recessions, I can say that recessions are hugely damaging in terms of people because we are forced to react to survive. It takes quite a few years to recover from one of those cycles. Some of us are concerned that we are going into a fairly significant downturn. It may be relatively short lived, but we just do not know. Coming out of that downturn, we must be careful that we do not lose many of the scarce skills in which we have invested a lot of money over the past few years. That is a concern in the contracting community.

There are a couple of things that I want to make clear in response to your comment that the contracting community is doing quite well. There has been cost escalation, but that is partly due to the fact that the fields that we are developing now are smaller. The size of fields has an influence on the cost per barrel. Smaller fields are also more difficult to develop and it is more service intensive to bring them online. We are at the tail end or nearing it. The easy stuff is past and it is getting a bit more difficult, which has a cost impact.

There is also no question but that there has been cost inflation, although we need to break that down. Partly, it is the high costs of mobile drilling rigs. I cannot speak for all segments of the service industry, but in the segment that I am in—world services—the inflation in our pricing is not that far ahead of the cost inflation that we have experienced through rising labour costs and other inflationary impacts.

Therefore, I challenge the suggestion that the service sector is doing well. Any downturn will hit the service sector pretty hard. If the level of activity drops, that has a major impact on the utilisation of people and equipment, which immediately affects profitability. There is also a lot of pressure on us just now from our clients over pricing, which will have a secondary impact. This will be an interesting and challenging year and anything that we can do collectively to increase activity, by whatever means, will have a positive effect on our ability to sustain the workforce that we have in the industry.

Archie Kennedy: We need to keep the focus on future investment, which is the life-blood of the North Sea. It is crucial that we do everything that we can to promote the North Sea and ensure that it is competitive globally. Mike Bowyer makes an important point in response to your question about the significance of the price of $40 now as compared with the price in the previous downturn. A key factor is that we are now typically chasing much smaller hydrocarbon pools. The large household names that are out there have been found, so we are chasing smaller hydrocarbon pools. However, we want to tie those back to existing infrastructure. The cost of the smaller pools is higher, as we are chasing a smaller finite resource, but we need to maintain the integrity of the existing infrastructure and keep it in good condition. That adds to the cost base.

When we look, for example, at the oil and gas survey that sets out the possible fields going forward, we start to see an average break-even price of $40 or $50—obviously, the price will vary from field to field. One of the key differences is that we are at a different phase in the maturity of the North Sea. In that regard, we need to consider it slightly differently. At the same time—to go back to my point about the existing infrastructure pipelines—it is crucial that we maintain the investment in the integrity of the existing infrastructure from a safety and a structural standpoint.

Going back to the significance of the price of $40, I point out that there has been cost inflation in

the industry over the past few years. On average, there has been around a 50 per cent increase since 2004. As we go into the current downturn in activity, there will be a supply-and-demand effect and the costs will reduce. However, that takes time, as there is a time lag because of long-term contracts with rigs and so forth. We expect costs to drop. Malcolm Webb talked about self-help. The industry is working to do that in a controlled way, so that it is not too volatile. Fundamentally, activity is dropping in the short term, and we have got to get through this period and position ourselves to be competitive and to attract investment in the longer term.

Professor Kemp: We undertake a lot of economic modelling of the short-term and long-term future of the North Sea oil and gas industries. With respect to the short-term difficulties, we are finding that, at prices of $40-odd per barrel and a wholesale gas price of 40-odd pence per therm, many prospective new projects are not viable. That takes into account a cost of capital that is not very high; if we had the high cost of capital that some of the smaller players are experiencing, it would be even worse. All our modelling is showing that the—hopefully—short-term problem is really quite serious. Our statistics on the cost escalation over the past four or five years indicate that the totality of the cost—there are different categories—has pretty well doubled. On that basis, $40 a barrel compared with $10 in 1998 is not really high.

My worry is that this year and next, investment in the North Sea could fall quite a bit. The case for tax relief that is being debated with the Treasury is well founded. The problem of the maturity of the basin is relevant because the average size of the newer fields is less than 20 million barrels of oil equivalent. Even in the 1980s, it was much more. We are suffering from the problem of maturity. If a stimulus is not given in the next year or two, there will be longer-run consequences, as the infrastructure will be yet older, and projects that use them will have slipped away.

Brian Nixon: I want to clarify Mr Macdonald's second point about the levels of activity in the supply chain. He was referring to the annual report that we are publishing today on the sales performance of the Scottish oil and gas supply chain in the UK continental shelf and internationally. The sales performance is indeed showing encouraging continued growth in the UKCS and internationally. However, we should qualify that by saying that the measurement is of activity during 2007 and the early part of 2008. Unfortunately, it will be 12 months before we know what the impact is of the current conditions. Nevertheless, we have had a healthy performance to date.

Malcolm Webb: Lewis Macdonald talked about the export business. The work that is being done in exports is tremendous, and long may it grow. However, I meant what I said about interdependence. We need production and the supply chain in the UK. I might sound as though I am arguing for all sides but, to be frank, I do not want a huge explosion in export activity that means that too much supply chain capacity leaves the UK during the downturn, because getting that capacity back could be difficult. We should keep growing the exports, but we should also keep up activity levels here in the UK, so that we keep the supply chain based in the UK. If that capacity were wholly exported abroad, that would not be good news for the production story in the long term.

Bob Keiller: As an exporter, I reinforce Brian Nixon's point that we should not be fooled or seduced by the 2007 picture into thinking that everything is rising upwards. In various oil provinces around the world—the markets to which Aberdeen and Scottish companies export—huge cuts in activity levels are taking place. For example, in Calgary in Alberta, where many Scottish companies ply their business, thousands of people have been put out of work and projects have been cancelled. The experience has been the same in the Gulf of Mexico and in west Africa.

The phenomenon is in no way local. A downturn is happening, particularly in capital projects. Archie Kennedy made the point that projects take time, so if a project is halfway finished, there is a fair chance that it will be completed. However, new projects are not being sanctioned and are being put on hold, which has a long-term effect on the activity level, export potential and oil supply. That will have an impact on price if demand kicks back in.

Geoff Runcie: I would like to move us on to the wider perspective of the regional context of north-east Scotland's economy and how that links into Scotland's national economy. There is no doubt that the industry brings a critical mass that is hard to quantify, but businesses that describe themselves as operating outside the energy sector talk about the attractions of the north-east and its ability to sustain activity levels that other parts of Scotland cannot. That is undoubtedly a factor that the committee needs to note.

Companies such as hoteliers, other tourism businesses and even golf courses are considering investing in the region. They are attracted by the geography, the disposable income of people in the region and the economy's very high gross value added in comparison with other parts of the UK, including London. If the committee is to look closely at and understand better the industry's operation and machinations, it must keep in mind the industry's clear and direct links with the wider

economy—with people such as sandwich makers and those who send DVDs to offshore workers—which mean significant employment not only in north-east Scotland but throughout Scotland.

Our recent survey showed that the industry's behaviour, confidence and investment levels have a direct and almost immediate bearing on the confidence, investment and energy levels of people who operate outside the industry's direct technical supply chain. We in Scotland need to remind ourselves that the oil and gas industry was one of only two industry sectors in the UK that were truly global; the other was financial services. At the moment, I suggest that the oil and gas industry is the UK's only truly global industry sector, so we must consider it in the round and ensure that the Governments in Scotland and in Westminster understand the bigger picture. The commodity price will rise and fall as markets dictate, but the continuing need to secure investment, jobs, skills and confidence in the wider supply chain is unabated in these difficult times.

14:00

Rob Gibson: On securing skills, I want to explore issues around diversification of oil and gas expertise into renewable energy and carbon capture—using the oil fields and being involved in the developments that we hope will come along. According to Scottish Enterprise—and, I am sure, Highlands and Islands Enterprise—offshore wind is forecast to become the biggest renewables growth sector in coming years. How will the oil and gas industry respond to that and how will it use its skills base to help?

Iain Todd: I welcome the opportunity to draw to the committee's attention the opportunities presented by renewables for the oil and gas supply chain. The Aberdeen Renewable Energy Group was set up four years ago to try to assist and facilitate that as best we can. It followed the lead set by others. In 2001, the Department of Trade and Industry's PILOT initiative, which looked at ways to bolster the UK oil and gas industry, set some targets, one of which related specifically to diversification. Renewables were identified clearly as a major area in which the skills of the oil and gas industry could help with other national priorities.

It is extremely important that the committee appreciates the scale of what is planned in the North Sea for offshore wind. The so-called round 3 of UK offshore wind farms will be equivalent to replacing one third of the UK electricity supply. It will involve 25,000MW and 5,000 turbines. The capital involved is estimated to be somewhere in the region of £75 billion. When we compare that with the annual current capital expenditure on UK carbon capture and storage in oil and gas of perhaps £3 billion, it is clear that a very significant amount of expenditure is going to take place in the North Sea over the next couple of decades or 15 years.

There is a huge opportunity for the Scottish oil and gas supply chain to capture as much of that work as possible. The most important point is that we could see mirrored exactly what happened with the oil and gas supply chain, which cut its teeth in oil and gas in the North Sea and then went on to market those skills globally. We are talking about the first major offshore wind programme. The whole world is watching and as the supply chain wins that expertise in the North Sea, it will be able to market those skills globally, and it could take the lead in global business in offshore wind.

I have a few final comments on the Aberdeen offshore wind farm, for which, as some people around the table will know, AREG is a co-developer. The wind farm will be a power station to supply the city, but it will also aspire to be a test centre for offshore wind—the European Marine Energy Centre of offshore wind, if you wish. That has caught the eye of Brussels. Two or three weeks ago, the European Commission proposed that we should receive €40 million to assist us to develop the test centre concept here in Aberdeen. You might wonder why it has favoured our site over others in continental Europe. We have a much higher average wind speed than test centres in continental Europe, which is why the Commission is particularly interested in the work being carried out in Aberdeen. More and more oil and gas supply chain companies are diversifying into renewables, and we hope that more will follow.

The Convener: Members of the committee were at Seaton this morning to look at the combined heat and power plant. We are well aware of the wind in Aberdeen.

David Doig: Rob Gibson asked about skills. We start from a good place with regard to diversification. The market will move towards where it should be. The oil and gas industry has its own academy, which is employer owned and trade union led. No other industry in the UK has one. The industry pushes through in excess of £10 million per year as it tries to address its skills needs. We have a way to go with that, but we start from a good place. The skills sets and disciplines are a variation on the theme of what originally existed for the oil and gas industry. There will be some learning in among that.

The oil and gas industry can take the lead and work with others to ensure that Scotland has the skills base to meet the industry's needs. It can also enter new, developing industries, but we need some help, including help from Government.

I will explain where we are. The oil and gas academy is pretty successful. Exports have been mentioned; we export Scottish skills to 26 countries. That is the opportunity. At home, a number of new structures—the national economic forum and the skills utilisation leadership group—have been established in Scotland through the Scottish Government, but the oil and gas industry is not understood enough, and does not have enough representation, on those forums. I would also like to see how we can influence the Scottish Further and Higher Education Funding Council skills committee, which is a standing committee that makes decisions about how to link funding to the supply chain and ultimately to employers. The strategy for Skills Development Scotland indicates that that is the virtuous cycle that everyone is trying to achieve.

No other industry can speak as a collective, but we can do so through the academy. We can bring employers into the debate and can work with colleges and universities to influence funding in a meaningful way. We can therefore build some long-term foundations, driven by our marketplace and in consultation with places of learning, but we are not there yet and we need some help.

The emerging structures have a focus on energy and renewables, but we do not have enough representation at the table, given that we have an awful lot to bring to it. I would welcome some assistance to enable the oil and gas industry to have a voice where it needs to be heard, so that we can influence decisions for the benefit of Scotland, for the oil and gas industry and for the renewables industry as it emerges.

Professor Robertson: Beyond that, we should highlight the research base that is available not only in Aberdeen but in the whole of Scotland, where energy has been seen as a priority. The pooling activity that was initially developed by the funding council has been crucial in moving forward energy research and, in particular, developing the renewables agenda. Two weeks ago, the national subsea research institute was launched at Subsea UK. The institute will lead at the cutting edge in subsea energy research, both for oil and gas and, potentially, in the longer term, for the renewables sector. The institute is the result of pooling activity between the University of Aberdeen, Robert Gordon University, the University of Dundee and Subsea UK. We should not underestimate that significant resource. The way in which the universities have moved away from just ploughing their own furrow to looking at the wider opportunities by developing their critical mass is vital. We must ensure that we tap into that resource and align it effectively with the needs of the industry.

Infrastructure has been mentioned. We must be careful to avoid the assumption that existing infrastructure could be adapted for use in renewable energy developments, such as offshore wind farms. The infrastructure is quite old, it requires a lot of maintenance and there is potential liability with it, so the renewables industry may not want to adopt it. Furthermore, it may not necessarily be where the renewables resource is for offshore wind. However, the knowledge that has been developed is crucial for moving forward the marine renewables agenda.

Brian Nixon: I add my support for Iain Todd's erudite description of the opportunity that offshore wind offers. He is right in respect of the opportunity that Scotland and the rest of the UK have to generate a completely new supply chain that could aspire to be something approaching the same size as the oil and gas industry. My first point is that we certainly need the skills, the experience and the technology of our oil and gas companies if we are to be successful in offshore wind.

As I come from a contracting background, I understand how contractors work in relation to risk and investment. My second point is that the challenge that we face in capturing the new market is to do with getting our supply chain interested and active, while we are at the stage of building small prototypes and before we get into volume manufacturing. The gap between where we are now and having an industry with critical mass that allows companies to begin to reduce costs and invest seriously is a big issue for us.

The particular challenge that we face is that the way in which our oil and gas supply chain is structured means that its success depends in large measure on the success of a relatively modest number of tier 1 contractors and their ability to draw in expert services, technology, specialist sub-contracts and the other things that make up the supply chain. From an economic development or growth perspective, in trying to capture the offshore wind sector, our biggest current concern is the lack of tier 1 contractors' interest in offshore wind. Smaller technology developers, service companies and consulting engineers are active and positioning themselves, but, because of their size, we would dearly love some of our major offshore contractors progressively to become more interested in the offshore wind opportunity.

Rob Gibson: Why are the tier 1 contractors less interested?

Brian Nixon: That is to do with general activity levels, despite everything that we have heard so far and the fact that activity levels in the domestic and international markets are reducing. We can only hope that that will stimulate companies even

more to become interested. I hope that they become progressively more interested.

Geoff Runcie: Rob Gibson asked specifically about offshore wind, but the whole renewables opportunity is a significant attraction. The committee should note that, with offshore wind, the big part for us is the bit at sea level and below—we are not a technology leader in wind turbines.

However, there is a second generation of marine-related renewables in which we could be a significant technology leader. That would bring the best of everything that we have to offer into one industry sector in its own right. Although the specific point was about offshore wind, I point out that Scotland has an opportunity to take the best of the technology, contracting expertise and engineering excellence to support aggressively the development of marine-based renewable energy and power generation. That might be the strategic prize for Scotland. We will have a significant number of opportunities to develop power generation through wind farms, but we will not have the technology prize that we would have with marine and maritime-related products.

The Convener: I want to move on. I ask Iain Todd to outline the major barriers that the Aberdeen Renewable Energy Group faces in developing a wind farm.

Iain Todd: Before I address that, I will follow up Brian Nixon's point about tier 1 contractors. It is correct that the market has probably not been large enough to attract their attention to date, but we might be approaching a turning point. With the announcement of the Scottish territorial round of offshore wind farms plus the United Kingdom round 3, the market is now large enough to attract the major companies. One of them, the Wood Group, is about to announce, or has just done so, its interest in the maintenance of offshore wind turbines and marine renewables, which are two key areas for a major company. That is a welcome announcement.

We have been working on our wind farm project for about four years and we probably have another year of feasibility work to do. We are in dialogue with important stakeholders on environmental issues. Aberdeen Harbour Board is a major consultee, as are aviation interests. We have more work to do with stakeholders, but we hope that we will work through the issues and apply for consent towards the end of this year.

14:15

Professor Kemp: Being not too young and having seen the North Sea oil industry emerge, I think that there could be a role for the Scottish Government in promoting and facilitating technology transfer where there is lack of knowledge about whether the market will grow. I remember that when the Offshore Supplies Office was established it had an uphill struggle to bring home to British and Scottish industry the potential market in the North Sea.

Rather than always speaking in generalities, we should acknowledge that there have already been success stories. For example, Burntisland Fabrications built two jackets for the Talisman project in the Moray Firth, and is now learning by doing, as we say in economics, and has a very big order for a lot of jackets for offshore wind in the Irish Sea.

Malcolm Webb: I come back to the point about skills. I would not want the committee to think that it is a question of cutting the cake again in different segments; we have to grow the cake.

I say to Iain Todd that I am not making an anti-competitive renewables point. We are not spending £3 billion a year in capital expenditure; we are spending £5 billion. We are spending another £6 billion on operational expenditure and £1.5 billion on exploration. We have to keep up that level of exploration, particularly through capital expenditure. I just hope that nobody is thinking, "Hold on, the oil and gas industry is on the wane; we can go and fill the gap by giving people jobs in renewables." That is not the way that it will happen; we have to grow the cake overall. That is why David Doig's points are well taken. We need help to grow the skills base, rather than just shuffling things around a little. That is not what we are about here.

Marilyn Livingstone: I am particularly interested in growing the skills base. In previous evidence, we heard about the flight of skills from some industries. Although that is not happening here, the challenge is how, in the short term and during the current downturn, we ensure that we retain existing skills as well as grow new ones. I would like to hear the panel's comments on that.

Many people are training in modern apprenticeships. What is the industry doing to ensure that if those apprenticeships are under threat, people can continue their training? What are the key issues for the Scottish Government in trying to retain or grow the skills base? I will return to research and development after your answers about the short-term problems.

Malcolm Webb: It would be interesting for the committee to hear from David Doig about our successful modern apprenticeship scheme. Activity is the simple answer to the question about skills. We have to keep up the levels of activity in this basin, keep people employed here and make sure that their skills are usefully and economically employed. That is the secret.

The danger that the industry faces now is that the double whammy about which I spoke—the banking crisis and the recession—might depress activity to an unnecessarily low level. We might then see skills flight, which would be difficult for us to overcome. In fact, experience tells us that it would take us many years to overcome it—if we ever could. The key to maintaining the skills base here—which I assure you we are keen to do—is to keep up activity levels, which means keeping up capital investment.

Besides that, we are seeking to ensure that companies keep up their investment in training as best they can within the constraints of their cash flow. The industry intends to keep its successful modern apprenticeship scheme going. I ask David Doig to add to that.

David Doig: As I said earlier, the academy is owned by the oil and gas industry and is funded through unique sustainable funding models. It does not draw down Government levy; it does not ask for anything other than what it earns. The funding commitment for this year is at least £10.1 million; it is the same for 2010 and 2011. More money has been set aside and can be allocated, if it is needed.

Far from slowing up, we are increasing our efforts in schools and at major attraction events. We are looking for other avenues—as I said earlier, we need some help on that—so that we can add value in other places.

We are crunching the numbers right now on our modern apprenticeship scheme, which is in its eighth year. That means that we will have trained 1,000 apprentices for technician level 3 jobs through a financial investment by employers of more than £65 million. We have the most successful modern apprenticeship scheme in the United Kingdom. It wins hands down, as can be seen from the stats on retention levels, attrition levels and success levels. The industry has supported and funded the modern apprenticeship scheme from the outset. The scheme has been very successful and will be even more so this year, according to the indicators.

The industry has put money into an academy of its own that it could ask to do things because we have had pain in the past. During the previous downturn in 1999, there was a mode of thinking that that was it and that we would now just manage the closure of the North Sea. We realise that that is not the case now, but if we do nothing, we will end up with a skills gap. A skills gap leads to cost inflation and just adds costs without adding any value. The board of the academy is fully committed to sustaining the investment in the long term. I can say no more than that.

Mike Bowyer: As an industry, we try to do everything that we can to protect skills. To some extent, we are able to move people around the globe to where activity is continuing but, unfortunately, once people leave the UK, it is harder than hell to get them back. The process involved is not easy. Another thing that goes on—certainly among the tier 1 contractors and probably among some tier 2 contractors as well—is that we invest a lot of money in internal training programmes to develop the skills that we need. Some of the people we bring on are, in terms of capability, probably second to none—they are some of the most skilful operators anywhere in the world.

Malcolm Webb was absolutely spot on in saying that activity is the key thing for us. If activity really gets into a bad place, we cannot continue to invest to the same extent as we have done in the past. We will still bring some people into our businesses, but we need activity to sustain the cycle and to keep the best skilled people here in the UK.

Marilyn Livingstone: My follow-up question is on research and development. Professor Robertson said earlier that a lot of R and D work takes place here—I have certainly read that in our papers—but, coming back to the current situation, Malcolm Webb has mentioned the need to sustain activity levels. Are there any threats to the funding that is being put into R and D? How do you see the situation progressing?

Professor Robertson: At the moment, the universities are continuing with the activity in which they have been engaged, of which energy is a key plank. Within Scotland, the energy technology partnership brings together a pool or critical mass, which should help to leverage more funding from across the UK specifically to address energy needs. That has been quite crucial. On the availability of the funding, we will need to look at what happens in the longer term. Within the UK, we have been warned that there will be cuts as a result of the recession. We will just need to wait and see what impact that will have on R and D.

In addition to what happens in the universities, the industry promotes activity through ITF, which stands for—someone will correct me if I get this wrong—Industry Technology Facilitator. ITF is absolutely key in identifying the industry's needs because it works effectively in engaging universities from throughout Scotland and the UK to get the right partners to address particular needs.

We will need to wait and see what the long-term impact of the recession is. We need to acknowledge that there will be an impact on R and D across the country as a result of resources being more scarce. Activity is still going on and

there is still resource available to engage in that activity. As I said, a key recent development that will have a direct impact on the industry is the establishment of the national subsea research institute, which is a joint partnership between industry and academia that looks specifically at the needs of the industry. Both the academic and industrial partners have made a serious commitment to moving that agenda forward to address the long-term needs for subsea.

Marilyn Livingstone: We heard from David Doig that the industry needs a voice at Government level, which is one recommendation that we could make. Should we make any other recommendations to the Government around the subject of skills and R and D?

Professor Robertson: Again, it is the responsibility of the universities to engage, either through direct involvement or through fora such as Universities Scotland and its various sub-committees. From the academic base, we have an effective engagement with Government.

Brian Adam: We have heard about the energy technology partnership—there are a number of organisations with three initials that are involved to some extent in R and D. Perhaps those of you from industry and from the academic side can tell us what progress is being made on the investment that should be coming from the Energy Technologies Institute, which the committee carefully considered some months ago, and—perhaps to a lesser extent, because less money is involved—from ITI Energy. Can you give us some background on that?

I was intrigued by Mike Bowyer's comment that, this time round, his company will not let everybody go just because there is a recession. I am interested in what he intends to do about staffing levels in order to retain staff as opposed to letting them go.

Malcolm Webb: It is a great shame that the Energy Technologies Institute was not based here, because Aberdeen is the centre of energy for the UK. I am not sure what its programme is for oil and gas—perhaps that is a failure on our part, and we should get closer to it to find out about that.

We are continuing our support for the ITF, which has been mentioned—it has an active programme under its new director, and is more active now than it has been in the past. My personal view is that it is sometimes difficult for companies to co-operate on R and D because it can be a deeply competitive territory. Much of the R and D work goes on deep in the bowels of the companies, and it carries on over the long term—the companies take a long view on it.

I will not talk about Mike Bowyer's staffing problems.

Brian Adam: I was trying to make the point that there has been Government involvement. We hope to have some influence not only over the industry, but over what the Government does. We need reassurance that that money is being well spent. Things have certainly gone quiet on the Energy Technologies Institute, in which significant sums of money were to be invested.

Iain Todd: The ETI has been active in the renewable energy area—it has had calls for projects in marine renewables and in offshore wind. It has announced four successful projects on offshore wind, which involve significant investment. I am delighted to say that the University of Strathclyde, which is arguably—or indeed, unarguably—the UK's strongest university on wind engineering, is strongly involved in two of those projects. That is precisely why our own offshore wind farm in Aberdeen will have strong links to Strathclyde—the ideas on wind engineering that are coming out of the university could be usefully applied as a trial in that wind farm.

As further evidence of the University of Strathclyde's strength in wind engineering, it has recently been awarded by the Engineering and Physical Sciences Research Council a programme of 70 PhD students who will work just in wind engineering. Scotland will become a major source of highly educated folk in wind engineering.

14:30

Brian Nixon: I was going to provide the information that Iain Todd has just provided. The ETI is about to award even more projects in which Scotland will feature strongly. Scotland is doing particularly well out of the first tranche of Energy Technologies Institute funding, albeit not in oil and gas but in the development and demonstration of alternative energies.

I will clarify the situation with ITI Energy, which you mentioned. Some weeks ago, Scottish Enterprise took the decision to integrate ITI Energy into Scottish Enterprise, and that integration is now under way. I believe that the intention is to retain the ITI Energy brand, but to collaborate and gain collective strength to maximise the foresighting expertise that the ITIs have developed, as well as to retain their significant programme management capabilities. The complementary strength that Scottish Enterprise will add is a greater emphasis on the commercialisation of the emerging technologies. The integration is bringing together the complementary strengths of ITI Energy and Scottish Enterprise for the greater good of the economy.

Brian Adam: Will ITI Energy remain based in the city of Aberdeen?

Brian Nixon: I am not able to confirm that. That is work in progress at the moment. However, I know of no plans to do otherwise.

Alex Johnstone: I am not sure whether I am taking us back over old ground, but I have a particular concern regarding the transferability of expertise between the oil and gas industry and the renewable technologies industry, which we very much hope is about to develop.

The great success story of the North Sea oil and gas industry is that it has produced companies that have been at their best when they have been involved in dynamic specialisation. Yet, in considering the transferability of skills, we are looking for companies that are broad based and adaptable. Taking its previous success into account, I worry that the industry in the North Sea is far more suited to taking those specialised skills across the world and applying them in a competitive world marketplace than it is to adapting to the new specialisms that will be required here.

Should the Government in Scotland or in the United Kingdom do anything to change that approach, which has been successful in the past, in order to underpin a new industry here? The success of the industry in the North Sea has been based on dynamic, specialised companies, both international and home grown. Regardless of how much training we may provide, we will have a serious problem in refocusing those dynamic companies so that they take a more positive view of alternative energies.

Bob Keiller: I welcome the perception that the companies are dynamic and focused, but a lot of them are already broad based and adaptable. Last week, I spoke to Cairn Energy, which is based in Edinburgh, about its drilling plans for Greenland. I asked what it will take to drill in Greenland and was told that it will take harbouring, boats, facilities and airstrips. There are companies in Aberdeen, such as my own, that already do those things in central Africa, in the far east and in northern Russia and which have diversified hugely into the skills that are needed to support the marketplace.

I have no doubt that, when the market exists and there is work to be done and to bid for competitively, the local supply chain will be up for the challenge and will recruit the PhD students from the University of Strathclyde and elsewhere to help in that challenge. However, the perception at the moment is that the market is still emergent and there is not the volume to encourage us to set up a lot of facilities in the hope that the market will exist in the future. We cannot run a business like that. When the market exists, we will satisfy the market.

The Convener: I must, briefly, interrupt the flow. Professor Kemp has to leave shortly, and Lewis Macdonald has a question specifically for him.

Lewis Macdonald: I appreciate the opportunity to ask my question.

Alex Kemp, who has a grasp of the economics of the offshore industry in particular, is about to leave us. For the record, I am interested in his view on what will define success in the offshore energy industry five or 10 years hence. How will we know that the policy has been optimal for production, investment and employment levels five or 10 years hence?

Professor Kemp: Thanks for that nice, easy question.

As Malcolm Webb said in his introductory remarks, a high central estimate of the remaining potential is 25 billion barrels of oil equivalent, plus or minus a fair range. If we—"we" means all stakeholders, the Government, all the companies and all the contractors—do not do things well, we will end up not taking all that amount out of the ground; we will leave some in it. To ensure that we get the 25 billion barrels or so safely depleted eventually, we must sustain investment. That was the key point that I wanted to make. There is a difficulty in sustaining economic investment with prices at $40-odd a barrel. The idea is that we need some sort of stimulus from the Government.

For the longer term, the policies of the London Government's Department of Energy and Climate Change are broadly on the right tracks. Along with the PILOT initiative, there is the fallow initiative, which involves reducing the number of blocks that are fallow and the times at which they are fallow, and the stewardship initiative, which involves supervising mature fields to ensure that maximum investments are undertaken to enhance recovery. There is also the infrastructure code of practice, which is designed to facilitate speedy access to the infrastructure at reasonable cost, for example. All those initiatives will enhance the rate at which new developments are prosecuted.

That is the key point. If we are to ensure that production does not fall quite fast, we must get around 20 new fields per year on stream, because they will all be quite small. There are occasional big fields, but most are very small. Therefore, all the policies should be geared towards sustaining activity. If that is not done, the danger is that production will go down quite quickly and we will end up with inadequate infrastructure to develop the remaining reserves, which will be left in the ground.

The Convener: Thank you very much for attending the meeting, Professor Kemp.

We will return to the issue that we were discussing previously.

David Doig: We need to be clear. The existing market is the oil and gas market. The oil and gas industry is a sustainable industry in Scotland and a financial generator that sustains the nation, but we will see a change. The focus needs to be on skills for that industry. The export of Scottish people with the appropriate skills will also support the industry in the long term.

The North Sea influences many other regions and has opened up avenues for export. We have an opportunity to build a framework for a new industry, through which it can be recognised that we have cutting-edge skills, dynamic people and pathways by which we can add something to a globally emerging renewables industry. Things need to start in the Scottish education system—in the schools. That opportunity is open to us.

A variation on the theme is that the oil and gas industry will still be here after everybody in this room has gone. We therefore need sustainable, highly skilled people; that will help to anchor key businesses here in the north-east and make the decision about whether we stay or go a little bit harder. We must also have a strong, sustainable education infrastructure that meets our needs. It is not about deciding whether to have one or the other, but about having both. It is about understanding where we are in true terms. As I said earlier—Bob Keiller emphasised the point—the market will move to where it wants, but it is not there yet. The market here and now is oil and gas, but if we are clever we can do something about the future.

Malcolm Webb: Alex Johnstone asked whether we have dynamic specialisation here and whether the industry is capable of providing it—it certainly is. I would not like anybody to think that our oil and gas industry is a static, historic fact, because it is an incredibly dynamic industry that changes all the time.

Bob Keiller talked about the industry going after the market if it is there. As Peter Robertson said, the industry went after the subsea market in a big way—thank goodness it did, because that new technology has enabled us to get into small reservoirs, bring them back and tie them into existing infrastructure. Forty per cent of North Sea production now comes through subsea completions, which is a fantastic example of the industry's resourcefulness. The UK and, I am bound to say, the north-east lead the world in subsea technology, which will be hugely important for the exploitation of the world's oil reserves. That is why we can be confident about what our supply chain will be up to. As Bob Keiller said, if the industry sees a market, then—my word—it can go for it.

Alex Johnstone: My concern is that the industry's character is such that those who are at the forefront of the development of the techniques in the North Sea basin and beyond, which Malcolm Webb mentioned, are the kind of people and companies whose preference is to go and find challenges in producing oil and gas in other parts of the world rather than take the challenge head on of producing renewable energy in the North Sea basin. I presume that the current balance is very much in favour of expanding the oil and gas industry, if that is achievable. How far does the balance have to tip, though, so that companies prefer to stay here to produce renewable energy rather than produce oil and gas in Greenland, for example?

Archie Kennedy: We must try to focus on the need for both. I do not envisage oil and gas being in competition with renewables or carbon sequestration—certainly, Scotland needs both. The key will be to sustain the oil and gas industry for as long as possible. The oil and gas molecules in the North Sea should be treated as a premium because they provide the security of supply, jobs and balance of payments, which then offers the transition of skills into renewables and other industries. The key is therefore to keep oil and gas capability as strong as possible for as long as possible. As the committee has heard repeatedly during the discussion, continued investment on that side is fundamental.

Moving into the renewables field will be a natural evolution for operators and contractors. We just have to create the fiscal and market environment to let that happen. We have a serious problem in the short term given the double whammy of the banking crisis and the overall economy, so we must take a longer-term view. It seems that we can have oil and gas and renewables in parallel as a long-term goal, because they are certainly not in competition.

Mike Bowyer: Earlier, I was asked what we would do differently this time to keep skills in place. The simple answer is that we do not know yet, but at least we have a mechanism to develop that aspect. During the previous downturn, we did not have Oil & Gas UK, but we do now. Oil & Gas UK provides a forum in which contractors and operators can come together regularly for frank discussions on current circumstances and on what we can do to avoid some of the impacts. We do not have the solutions just now, but we are talking about them. We are in a better place than we were last time around.

14:45

Malcolm Webb: I say to Alex Johnstone that there is no competition, in a UK sense, between our industry and the renewables industry. As far

as renewables are concerned, we say, "Bring it on." There is a space for renewables to go into.

Even if we assume that all the objectives for renewables can be achieved, this country will still require oil and gas to the tune of 70 per cent of its energy supply in 2020. Oil and gas will be the primary energy supply. We will need to get as much as we can from the North Sea, but it will not be able to supply all our energy needs. As a result, opportunity knocks for the renewables industry. I do not think that there is an internal UK conflict on that.

I realise that I have not quite answered the point about UK companies floating off around the world to find other ways of making money in oil and gas. However, there should be money to be made in renewables as well.

Alex Johnstone: I would suggest that that is a form of competition. When you say that there is no competition, does that include competition for expertise and investment?

Malcolm Webb: Yes, there would be that sort of competition, but I do not regard that as unhealthy. I do not quite see what the alternative is.

Alex Johnstone: I see a number of models for the way in which the industry could move. As someone living in the north-east, I observed the development of the North Sea oil industry when I was very young. The industry came into existence overnight, using imported technology and largely imported personnel. The industry then quickly adapted to become an indigenous industry, and the Aberdeen industry became a world leader in its field. That transition makes me worry about what might happen in future. If we undergo a significant transition, the same companies might be working in the North Sea but with different skills and expertise, or different companies might be working in the North Sea as the companies that currently work there go off and ply their trade elsewhere. In that transition period, as happened when the oil industry started, there is a danger that external technology will come in to plug a gap.

I need to be confident that we are in a position to be the leaders in the field—regardless of how low the level of activity is when compared with the oil industry—to ensure that we can plug our own gap in the market, so to speak. We do not want a recurrence of what happened with the onshore wind industry, which evolved quickly while the technology simply did not exist in Scotland. It was a Scottish industry in terms of generating power, but an import industry in terms of technology and expertise.

Malcolm Webb: I understand your point, but I am not quite sure that I understand what your solution would be.

Alex Johnstone: Oh, I am looking for solutions; I do not have them myself.

The Convener: Any suggestions would be welcome, on a postcard if necessary.

Nigel Don: I wonder whether I might ask a question that people probably do not want to be asked. If we had asked questions of people in the banking industry a year ago, they would have said that everything was fine—and we now know that they would have been wrong. I therefore want to ask you to give us some clues as to how bad things will have to get before they are considered really bad. If, to choose random numbers, the oil price stays at $30 a barrel for the next three years, how bad would that be? At what point does a bad scenario turn into a scenario in which we start shutting things down because there is not the cash in the system to sustain them?

Archie Kennedy: I am never one to duck a difficult question. I would say that the situation is already very serious. Last summer, we were in conversation with the Westminster Government on how to stimulate future investment. If you recall, the price of oil was very high but we did not expect that level to be sustained. That said, we did not expect it to fall as rapidly as it did either.

As I said earlier, we now clearly understand that activity will drop off. The smaller companies cannot access either debt or equity financing and the larger companies are living within their means by becoming their own bank and funding projects from cash flow. The various leading indicators, such as rig numbers and so on, show that activity is starting to drop off. That is already dialled in.

If oil prices were to remain at $30 a barrel for three years, that would have serious implications for many oil-producing provinces around the world. It would be particularly serious for the United Kingdom. The North Sea is a mature area and it is relatively expensive to operate there, because it is not a benign environment. Those two factors would make it difficult to attract future investment in that situation.

The situation is already serious. We are thinking about solutions that the industry can come up with and are in discussion about how, without asking for a bail-out, we can stimulate future investment.

Nigel Don: Is it possible that the oil price might stay low—I do not know what the numbers might be, but the numbers are not really the point—for as long as five years? If I were running the oil industry in the middle east, I might well find it quite convenient to put the North Sea, as well as a few other competitors, out of business. I am sorry if that smells a little too much of international intrigue, but let us use that scenario as a way of illustrating the point. If that were to occur, how long could we hold out? Would we simply have to

accept that the pipelines were no longer maintainable and that the infrastructure was too old and would not be replaced, or is there an assumption that we will never get to that point? I would like to challenge that assumption, if that is the case.

Archie Kennedy: We cannot say how long we could last in such a situation. The mindset just now is that the North Sea has a strong future, provided that we do the correct things. That might not have been the mindset during previous downturns, which is one of the reasons why certain actions were taken that were, in hindsight, short-termist.

As the current situation goes on, you will see more and more extreme reactions to it. Sadly, that will involve an impact on activity and jobs over time. The longer the situation goes on, the more difficult it will become and it is almost impossible to say what the end picture will look like. Many pundits are arguing that, behind the credit crunch, there might be an energy crunch, which could make the situation swing the other way. However, as an industry, we are planning for a range of scenarios, including the doomsday version that Nigel Don has outlined.

Nigel Don: I would like to be a little more positive and ask about the west coast oilfields. I appreciate that they are not in the North Sea, but they are close enough for the oil to be piped in one way or another. How does the industry feel about supplies in the north-west? By how much will the economic climate have to change before there is expansion in that area?

Malcolm Webb: You might say that the area west of Shetland is the new frontier. When we spoke to the Government last May—although, as Archie Kennedy said, we were in a completely different business environment then—we said that there was a case for helping to stimulate and incentivise investment in that area. There is still potential for a lot of capital investment, and the Government currently envisages around $4 billion-worth of projects in that area, which we hope will come to fruition. Obviously, whether they do will depend on the economics of the case.

On the doomsday scenario, I am not sure where any of us would be. Archie Kennedy's view is right: looking to the medium term, it is absolutely imperative to ensure that activity levels do not fall to the level at which we are cutting the muscle of the industry. I can assure you that we, as an industry body, are not taking the situation lying down. We are talking to the Government and the industry about what needs to be done now to ensure that such a scenario is not realised.

The west of Shetland and the area out on the Atlantic margin is, if you like, the new frontier, and it will be very interesting to see what comes from it. As you know, there are some developments in the pipeline at the moment, which we hope will be sanctioned in the not-too-distant future.

Nigel Don: I have moved across to the west of Shetland, so my follow-up question is this: What kind of oil price would you need to believe in before that oil frontier would become worth developing?

Malcolm Webb: I need to be very careful not to quote oil prices for specific types of venture, but we do need something to break. As we said in our activity survey, when we tested the projects that are in train at the moment—in the pipeline, if you like—not just west of Shetland but across the piece, we found that only a third of them pass the economic test at $50 a barrel at current cost levels and tax levels. I think that the market will bring this through, however. We need adjustment on costs and we need the Government to move on tax, which is not a new call from us. As Archie Kennedy said, we were talking to the Government about this last May. It has now become more urgent that something be done. We are going to be making the same plea again tomorrow.

Nigel Don: As we clearly understand, the fiscal regime is governed from Westminster. Can we be clear about the things that the Scottish Government has within its grasp that you feel should be done, but which you perceive are not being done?

Malcolm Webb: I am not sure that there is a huge amount of headline stuff in respect of issues that immediately concern the remit of the Scottish Government. As I said in my opening remarks, it is more of a Westminster issue.

We would make a plea to the committee not to make things worse on the cost side. When you are thinking about where to regulate, please do not double up on what is already going at Westminster and make the regulatory situation more complex than it is now. As David Doig said, we want you to get behind us by supporting the skills agenda. We could do with some more Scottish Government support there.

I am sure that you understand the importance of the industry, so you could perhaps help us to promote a general understanding of it across the nation. This industry is the jewel in the crown, but I am not sure that its importance to the nation, its people and its employees is fully understood throughout Scotland. Some help in that regard would be very much welcomed. I am not sure whether colleagues have points to add, but I think that those are the major ones.

I will return to another thing I said earlier. Aberdeen is the centre—the hub. What could we do to make Aberdeen a more attractive investment

destination for the supply-chain companies from around the world? What could we do to continue to improve the infrastructure of the city, so that it really is an international destination of choice for our industry? That is another important question that we need to ask ourselves.

Geoff Runcie: We should also remember the region's economic development strategy. All the parties that are represented in this room have been fully bought into it. ACSEF—Aberdeen city and shire economic future—has a well-developed plan and we are working through the implementation phases of its seven key strands.

Nigel Don asked in effect about two—planning and transport—in which the Scottish Parliament has levers of power. There is no doubt that Aberdeen needs to be as competitively connected to the transport infrastructure as any city in Europe. We need a planning system that is facilitated at the local level, and which encourages investment, the expansion of indigenous businesses and a practical, modally effective connection to the transport infrastructure. That may not be the sexy side of energy, but unfortunately it is the necessary side of energy.

15:00

Malcolm Webb made the point that Aberdeen is the home of the industry. However, it is a long way from anywhere. If you are going up and down the motorway, I am sure that you will see ARR Craib Transport Ltd trucks, and many others, hauling goods and products up here to be distributed to the oil and gas industry offshore. The big lever of power that the Scottish Government has is in respect of a transport infrastructure that would allow this part of the country to be connected effectively. That also goes for rail although, in fairness, the Scottish Government has supported the upgrading of rail facilities and infrastructure up to Aberdeen. We are geographically disadvantaged simply by the fact that we are a long way from any other parts of the economy. Our supply chain goes right through the UK and into Europe and we need to move goods and provide services as cost effectively as possible, because that is all part of the supply-chain cost.

I would seriously encourage the Scottish Government to consider how it enables and empowers the speedy development of transport infrastructure projects, such as the western peripheral route and all the local connecting elements, and how it enables economic development through a responsive and efficient planning system.

Lewis Macdonald: The issue of ageing infrastructure in the offshore area has been mentioned a couple of times. The ditching of a helicopter in the North Sea the other day reminded us of the human cost that has been paid in the past for extracting oil and gas from what is a very hostile environment. As we consider the development of new industries, which will also operate in that hostile environment, there is the critical matter of safety, and of ensuring that the infrastructure is fit for purpose and does not put at risk the lives of those who are involved in extraction. Would witnesses say something about that in terms of both the oil and gas sectors, and about the old fields and old kit that are there in some cases? How is safety ensured?

There is also the issue of the new development of marine renewables and offshore wind. How is provision made to ensure that those are safe working environments, because there will be people whose jobs will take them to those facilities in the future?

My second point on infrastructure is quite different, but I put it down as a marker. One area that we have not really addressed at any length is carbon capture and storage. I would like some comment on that from those with expertise in that area.

Bob Keiller: I speak on behalf of the oil and gas industry's commitment to keeping the infrastructure fit for purpose and making it a safe place for people to work. I will leave the discussion of renewables to others who are better informed on that.

In previous downturns, there has been an attendant drop in investment in maintenance and upkeep of assets. We focused strongly on people keeping safe during their day-to-day jobs, but we lost sight of the important fact that operating with high-pressure hydrocarbon facilities, miles from anywhere, presents a hazard that is more acute than many other workplaces.

It is fair to say that the industry has got its act together again. The Health and Safety Executive's "Key Programme 3" report was a reminder to the industry of what is important. Much work was being done then, but there was still a great deal of room for improvement. Since then, the industry has upped its game significantly: the number of areas in which assets are not maintained to the full and proper standard has reduced considerably; the number of evidenced hydrocarbon releases is dropping; and the number of people being injured in the industry has also dropped.

More than any of that, the seriousness with which the whole subject is taken means that it is now presented as the primary subject at the cross-industry table, whereas, in the past, fiscal and production matters might have received a higher billing. The subject is very much the focus for the industry now—more so than it has ever been. It is

encouraging that, with all the talk of reduced investment and low oil prices inhibiting people's ability to put money back into the sector, the one thing that remains resolute is the industry's commitment to maintaining investment in the maintenance of critical assets, whether production assets or accommodation facilities and platforms. Nobody is talking about cutting back maintenance on safety-critical equipment and systems. In fact, quite the reverse is true: people are openly committing to keeping the investment in those areas. As someone who employs large numbers of people who work on those facilities, that is what I want to hear.

Mike Bowyer: I have a couple of comments to add to what Bob Keiller said—he is absolutely right. In addition to the investment that the operators have made over the past few years in the offshore installations on the supply side, a period of improved prosperity has helped us to invest in business. Much of the equipment that we are using in the North Sea is in much better shape than it has ever been. There has been a pretty big commitment to reinvestment in the industry as a result of the past few years of relative prosperity. We are investing about £20 million in new facilities in the Aberdeen area to equip us for the longer term.

One or two of us here have been involved in a step change in safety. Throughout the past 10 years, I have seen no change in the amount of commitment by the industry leadership to safety in general. It is recognised that there was a period when we perhaps did not do enough and that we must ensure that we do not go back there. Recently, I have sat in on a number of discussions in which it has been said that whatever we do to get through this downturn, we cannot afford to take our eye off the ball on safety—we must ensure that safety continues to receive the attention that it needs.

I cannot talk about the helicopter incident—I think that not a whole lot is known about it. Perhaps the fact that nobody was seriously injured in the disaster is testament to the fact that a lot of investment has gone into improving helicopter safety. Perhaps that is not the best example. The helicopter was pretty new and it has been taken out of service until there is a better understanding of what caused the accident.

I have not heard anybody talking about making cuts that would have a bearing on people's safety.

David Doig: I want to add a bit to what Mike Bowyer said. The industry continues to drive up the standards that it sets for its workforce in the North Sea. Those standards are respected and adopted throughout the world as the industry norms. That is a credit to the people who work in the North Sea who helped put the standards together.

Last year, 108,000 people were trained to the same basic standard as the guys who came out of the helicopter, who said that they knew what to do and when to do it. That standard was born in the North Sea. The industry is shortly going to make a massive investment in its workforce, starting on 1 April, with a new minimum industry safety training standard. The industry seeks continually to drive up safety performance. The new standard will be applied to every single worker in the North Sea and every single new person coming into the North Sea. It is the biggest single common change in offshore safety since the introduction of basic safety and survival training 20-odd years ago. The industry sees that as an investment. I think that 50,000-odd people will have undergone the training by the end of 2010—a pretty big investment in real terms to drive up safety.

Iain Todd: Safety is of course paramount in taking our emerging renewables industry forward. The onshore wind industry has a good safety record, but that is not a ground for complacency. As we move offshore, new hazards emerge. We share some of those hazards with the oil and gas industry, such as working at heights or in confined spaces and working with electricity in a marine environment. The training has common elements, so it is not surprising that OPITO is getting involved in the standard setting for the offshore renewables industry, based on its expertise in offshore oil and gas. That is welcome.

There are also differences. Access systems—getting on and off offshore turbines by boat or helicopter—is a new area. The Aberdeen offshore wind farm could be a useful testing centre for that. I keep returning to that. We have big safety testing companies in Aberdeen, so testing could be a big opportunity for us. Bond Offshore Helicopters Limited has already purchased its first dedicated helicopter that is designed for delivering technicians on to offshore wind turbines. That is a novel aspect of the new industry.

Archie Kennedy: I emphasise the commitment to safety by the leadership in our industry, particularly in the offshore layers of management. Safety must be and is our number 1 priority. I am talking about safety from a behavioural point of view, to stop individual accidents, and from a process point of view, to avoid a serious incident or calamity. We must maintain that focus. If anything, the conversation has to be much more focused and pointed in the tougher economic environment so that we do not take our eyes off the priority. There is no scope for complacency—we have learned that lesson very much the hard way. Therefore, commitments will still be made to maintenance and replacement of infrastructure: new pipelines are going in to replace old ones as we speak. We must keep safety at the forefront of our minds.

The Convener: I turn to another couple of issues on which the expertise of the industry might come into play. The first perhaps applies to a lesser extent. Knowledge of operations in the North Sea would be helpful in relation to the European Union proposal for a supergrid and North Sea interconnector. Is there any industry interest in that project?

Secondly, carbon capture and storage, which Lewis Macdonald hinted at, is perhaps a more significant issue. The depleted oil fields in the North Sea are a potential place in which to store carbon once it has been captured. Have North Sea operatives shown any interest in getting involved in that scheme? If not, what do Europe, the Scottish Government and the UK Government need to do to attract that interest?

Iain Todd: The supergrid is important if Scotland is to develop its full potential for renewable energy, and export energy to elsewhere in Europe. We can develop capacity to serve our domestic market and export energy south to England. However, if we are to export to other European countries, the supergrid would be tremendously advantageous, particularly when we take into account the fact that the UK round 3 wind farms will be in the centre of the North Sea and could tap into the supergrid. I was present at a conference in 2004 at which the idea was first floated by the then head of Airtricity, Eddie O'Connor. Very few people in that room believed that a supergrid could happen, but it is being taken increasingly seriously in Europe as a distinct and essential development. It would be good for Scotland. Any political pressure that can be applied to assist the supergrid coming to the UK and Scotland would be welcome.

15:15

Archie Kennedy: Carbon capture and storage technology is evolving, and we should do everything that we can to promote both pre-combustion and post-combustion carbon capture technologies. Everybody will be aware of the competition that is running at present on post-combustion capture. We also need to promote pre-combustion capture technologies as an alternative that offers the potential to capture carbon on an industrial scale.

The technology work is proceeding and there is increasing confidence in both technologies, although there are still questions to be answered. The key step change will have to be a fiscal and environmental regime that encourages investment. We are talking about huge investments, and that environment is not yet established in the UK or in Scotland. The UK Government will hold a consultation on that shortly, which we look forward to. That will be a key step. The Scottish Government, the EU and the UK Government can play a role in setting up a regime that will allow people to work their economics and, potentially, bring something forward.

Brian Nixon: I agree entirely with Archie Kennedy, but there is another dimension—the demonstration of the technologies. The technologies for carbon capture, transportation and sequestration are generally available, but they have not been demonstrated on anything approaching a commercial scale. There is therefore an enormous opportunity for Scotland, at the same time as addressing all the points that Archie Kennedy has made, to accelerate a commercial demonstration in order to get our supply chain and operators involved with the technology. As with offshore wind, that would provide an early-mover advantage. Accelerating a demonstration project would be of huge benefit.

Lewis Macdonald: I want to go back to the specific point about infrastructure and the depleted reservoirs that the convener mentioned. If the technology reached the stage that we all hope it will reach and was commercially proven, how far would the existing North Sea infrastructure be recycled or reused for carbon storage? Would you be looking at completely new pipelines and transit mechanisms?

Archie Kennedy: I will give a general answer. On the technical side—the metallurgy and so forth—we would be dealing with a different suite of problems. There would also be the matter of risk management, which the industry is quite good at. Although we would always seek to use existing infrastructure, our studies have suggested that, as we got into the depths of it, we would pretty much have to start from scratch and establish infrastructure that was fit for purpose. There might be some overlap, and we would obviously reuse the reservoirs, but I echo Professor Robertson's earlier comments. I expect that new, redesigned equipment that was fit for purpose would be required—especially given the 40-year lifespans that you are thinking about.

Nigel Don: Can someone clarify what is meant by "a commercial scale"? Can somebody put a number on what constitutes a commercial scale?

Brian Nixon: A current UK competition has defined commercial scale as being more than 300MW. My point is that there is a need to demonstrate the technology to something approaching that level—it need not be as grand as that—much sooner than that is likely to happen as a result of the UK competition.

Lewis Macdonald: Could it be 50MW? What scale would be practicable?

Brian Nixon: In my book, anything of that scale would adequately demonstrate the technology.

Any new technology must go through a ramping up in scale, validity and all the rest of it but, as a first demonstration opportunity, such a project would set us on a strong course.

The Convener: The committee is aware from its visit to Brussels that the European Union's economic recovery package includes the possibility of an accelerated carbon capture and storage scheme. The number of sites in the regional scheme has been reduced from 12 to five and Longannet is a candidate, so all the agencies involved need to ensure that Longannet remains in that competition and has the opportunity to put a foot on the bottom rung of the CCS ladder.

Alex Johnstone: The potential role of decommissioning in the industry in years to come has not been mentioned. Does that provide a practical and economic opportunity to prolong the North Sea's mature phase, as companies progressively diversify into decommissioning roles?

Bob Keiller: Yes. Decommissioning has huge potential but already, in the past six weeks, two decommissioning projects have been put on hold because people are being careful about where they invest.

The same skills are needed as were required to put in place all the equipment, because decommissioning involves doing the same puzzle in reverse. Recently, decommissioning has occurred in Alwyn North. Some decommissioning has taken place in the Ekofisk area and in other areas. The same players that helped to put the equipment in place have helped to take it out. That involves a lot of jobs and activity. A lot of onshore activity will be sustained by decommissioning in the long term.

However, I have been in the industry for more than 20 years, and decommissioning has always been five years away. That was the case when I started and it is probably the case now. When oil prices are high, people want the assets to continue to produce oil. When oil prices are low, they cannot afford decommissioning, so they tend to shelve it. We are some way off decommissioning and we cannot rely on an upsurge in such activity to replace the jobs that might ultimately leave the industry as production falls away.

Malcolm Webb: It is fair to say that much of what we are trying to do is to postpone decommissioning as long as we can—we certainly do not want premature decommissioning. However, that is another interesting market for this mature province. We can gain expertise in decommissioning that we can export around the world, because the market is quite large. However, to be frank, we are trying not to decommission too much of the kit, so that we can leave it in place to obtain most of the 25 billion barrels that remain. We emphasise that.

We have several concerns about the existing decommissioning regime, but I guess that they relate to Westminster—they are about the security and fiscal arrangements for decommissioning. For example, people should be able to establish fiscally efficient retirement funds for their decommissioning liabilities, but the system does not allow that. The decommissioning market is big, but we hope that full decommissioning will be postponed for some time.

The Convener: I do not think that we want to go into retirement funds.

Geoff Runcie: I have a couple of final wider points. It is important that we do not move away from the topic before we have considered future projects such as energetica, which is about energy efficiency and attracting into Scotland new businesses that are on the leading edge of energy reduction. The Scottish Government, local authorities and many of us around the table are committed to carbon reduction. The intention is to maximise the power base of our oil and gas and energy-contributing industries and to use it as efficiently as possible.

We should look in our rear-view mirrors to see how we have behaved and use that information to guide our behaviour in the coming period of economic challenges for the oil and gas upstream industry. However, we do have some exciting plans to attract a new generation of businesses from beyond the region and, for that matter, to grow new businesses. Energetica is a nationally important project to regenerate a significant corridor that has not seen the full benefit of the current family of industries around the energy industry.

We have opportunities to look forward and the Government has levers of power. It is about planning, transport, promotion and making the investment proposition that Scotland has to offer as compelling as it can be against a global background of other exciting projects. We should not lose sight of the next generation of energy efficient businesses and the technologies, management systems and other things that they will need to be competitive on the global stage in the next 20, 30 or 50 years. I leave you to think about energetica—it has been conceived and a lot of work has been done. It is a fantastically exciting project and there are many opportunities for businesses in reducing demand for energy in every sense—from hydrocarbons through to generated power.

The Convener: I assure you that the committee's inquiry is focused on the energy

reduction side as well as on the energy production side.

Iain Todd: I have two final points that have not arisen so far.

First, one of the differences between the oil and gas market and the renewables market is the power exercised by the turbine manufacturers in renewables. Supply and demand is very much controlled by, principally, Danish and German manufacturers of wind turbines. One school of thought says that once the Chinese turbine manufacturers come on stream that control will weaken but, nevertheless, anything that can be done to attract a wind turbine manufacturer to Scotland would be welcome, because we do not have one. It is a tough nut to crack, and civil servants have been working on it for a long time, but it would be a welcome development.

Secondly, many organisations can have an impact on the delivery of Scotland's renewable energy targets, including environmental organisations, aviation organisations, industrial organisations and defence organisations. The delivery of the renewable energy targets is not their core business, but they can have an important impact. Anything that the committee can do to create a climate of acceptance among wider society would be most welcome.

The Convener: I thank all the panellists for their time and their valuable contributions. The committee will take a lot away from today's evidence session. We came to Aberdeen because, as Malcolm Webb said, it is the centre of the oil and gas industry. The session has been extremely useful, and I am glad that we made the trip.

I remind committee members that we meet again in Edinburgh on Wednesday at 10 o'clock, when we will take evidence from Stewart Stevenson on the Climate Change (Scotland) Bill.

Meeting closed at 15:28.

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