



Welsh Affairs Committee

Oral evidence: [Energy generation in Wales: Shale Gas, HC 731](#)

Monday 9 December 2013

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Written evidence from witnesses:

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Members present: David T. C. Davies (Chair); Guto Bebb; Glyn Davies; Stephen Doughty; Jonathan Edwards; Jessica Morden

Questions 182-220

Witness: **Ron Loveland**, Energy Adviser, Welsh Government, gave evidence.

Q182 Chair: Mr Loveland, thank you very much indeed for coming along here this afternoon, all the way from Wales. My apologies for the slight delay in starting; obviously Members wanted to pay their tributes to Nelson Mandela. Thank you for bearing with us.

I will ask Stephen Doughty to start the proceedings. I can assure you that this will be a very relaxed session. We are looking to get as much information as we can out of you in the nicest possible way. Would you tell us what your role is, and then Stephen will ask a few questions?

Ron Loveland: I have been involved in energy in Wales for a long time now, since I joined the WDA many years ago. I joined the then Welsh Office in 1990 and had a portfolio that included energy. That has grown over the years until, two or three years ago, I had the opportunity to become an energy adviser, which meant that I lost some of my management responsibilities and could very much concentrate on the energy world itself.

As the energy adviser to the Welsh Government, I have three roles. One is to be an adviser to Ministers, special advisers and my civil service colleagues. I have an ambassadorial role, which I am partly fulfilling today. Perhaps most relevant to today's discussion, I have a pathfinding role, trying to look at where energy, both in Wales and in the UK, will be within the next decade or so.

Q183 Stephen Doughty: Energy policy is obviously in the vast majority non-devolved. The Welsh Government have stated that they are taking a “precautionary approach” to the potential of shale gas development. Can you explain what you understand is meant by that

precautionary approach? You stated your role as being an adviser. The First Minister has energy as part of his own portfolio. What do you understand are his views, or the views of the Cabinet, on shale gas in particular?

Ron Loveland: I will give a slightly longer answer than I would normally give on that. First, if you look at our policy document “Energy Wales: A low carbon transition”, which the First Minister launched at the beginning of his Administration, you will see that we very much recognise that gas is a transition fuel, as we move towards a low-carbon economy. People forget how important gas is in the energy scene in Wales.

Clearly, we have had gas stations in north Wales for some time, including the Connah’s Quay station, which takes its gas off the Liverpool Bay fields. More recently, we have had developments in south Wales, including the big Uskmouth and Pembroke power stations, along with the LNG terminals and the pipeline associated with that.

It is natural, if we are told that there might be shale gas underneath the land of Wales, to be very interested in exploring that possibility. Clearly, as you mentioned, because we are in a novel world, we have to follow the precautionary principle. We essentially believe that that means taking the best possible evidence before moving forward. In that sense, there was a Cabinet discussion on shale gas two weeks ago, at which it was agreed that, whilst recognising the concerns, there was a strong interest in what might be underneath the ground, but we needed more research before we produced a Welsh Government policy paper.

Q184 Stephen Doughty: What do you understand is the current view, based on the emerging evidence, of the First Minister and the Cabinet? Is it still very much that they need to wait and see and to take more evidence, or is it coalescing around a particular view?

Ron Loveland: There are too many unknowns for there to be a strong opinion. Clearly there are concerns around safety, the environment and what the economic potential might be. There are interesting possible revenue-generating mechanisms using this resource, as with any other resource, to enhance the wealth of communities.

Q185 Stephen Doughty: The UK Government have taken a clearer position so far in supporting the industry and the potential for shale gas development. Why do you understand they have taken that view, and what discussions have the Welsh and UK Governments specifically had so far around shale gas development?

Ron Loveland: We have had many discussions with the UK Government, particularly DECC and the new Office of Unconventional Gas and Oil. We have long been talking with BGS—the British Geological Survey operation—about what might be in Wales.

The difference is partially because of the prospects. To step back, if I understand the world of shale gas correctly, often you think that the gas you find in more conventional deposits is actually sourced from the shale deposits, so it comes up from underneath. That means that, in places in the UK where there might be capstone rocks to capture the conventional gas, there has been a fair amount of drilling. Those areas are basically Lancashire, the Weald and the midland valley of Scotland. In Wales, there has been very little of that sort

of exploration, and therefore there are even more unknowns in respect of Wales than there are in other parts of the UK.

Q186 Stephen Doughty: Do you think that possibly the UK Government should be taking a more precautionary approach than they are at the moment? Obviously, it is a slightly different tack from the Welsh.

Ron Loveland: It is not for me to say.

Q187 Stephen Doughty: You mentioned the contribution that gas makes overall to the Welsh energy sector. We visited the LNG terminals and have taken evidence from various other providers. In headline figures, how important is gas as a source of electricity, domestic heating and cooking for people in Wales compared with other energy sources? How important do you see it remaining as a source in the future? You mentioned it as a transition, but there is still obviously going to be a domestic need. Some headline figures would be helpful.

Ron Loveland: In terms of gas statistics, the sale of gas by Wales & West Utilities, who serve the domestic sector and small companies, is about 3 billion cubic metres per year. Apologies for the units—it is a very strange world when you look at the paperwork. The units for consumption and the units for supply are two different things, but, trying to put it all in a common unit, Wales & West Utilities supply something like 3 billion cubic metres per year of gas, which will mainly be for heating purposes. From the heating perspective, gas is our main source of energy.

It is also interesting to consider whether, were there to be shale gas deposits in parts of Wales where the gas network does not reach, it might encourage the delivery of gas, and all that that can mean for the alleviation of fuel poverty.

Gas is clearly more and more important on the energy generation side. That has been the case since we persuaded DECC to overcome their moratorium that stopped the GE Baglan Bay gas station going ahead. It was then the most efficient gas turbine in the world. They are now joined by other parties.

As we move forward, we will have more low-carbon energy, nuclear and a mix of renewables. In due course we may have carbon capture and storage, particularly for stations in the north of Wales, which could use the saline aquifers in the Irish Sea for carbon storage. How we move forward on that is a very interesting question, which always has to be looked at from the perspective of the well-being of the citizens of Wales. You need to look at it from a low-carbon perspective, an affordability perspective and a security of supply perspective. At the moment, gas looks attractive, particularly from the affordability and security of supply perspectives.

Q188 Glyn Davies: I am quite interested in the last point that Stephen made; it relates to your description of shale gas as being a transitional fuel. I look at it as being a replacement fuel, first for imported gas and then for coal, as coal has to come off stream. If effective and economic carbon capture were to be attached to coal, then coal could be reused. Is it the Government's view that it is a transitional fuel? If it is transitional, how long do you—

Ron Loveland: Sorry. It is transitional in the sense of moving to a low-carbon energy system.

Q189 Glyn Davies: Do you think we can do it all by wind farms in the end?

Ron Loveland: No, not at all. One of the important principles and one of the anchors in this uncertain energy world we find ourselves in is that you always have to have a very diverse energy system. Diversity would come from having nuclear and a mix of renewables both on land and at sea, and having gas.

Q190 Jonathan Edwards: Can I take it from that that, if Wales was in the position of having full control over all of its energy resources, you would be pushing the Welsh Government to go strongly on shale gas?

Ron Loveland: No; I would be where I think the Welsh Government is at the moment, which is that we want to see it explored, but within the precautionary principle of gathering evidence.

Q191 Chair: You would not necessarily be pushing the Welsh Assembly Government to go any harder for shale than they are at the moment, if the Assembly had full control over this?

Ron Loveland: It is not in our hands, in the sense that the expensive drilling has to be done by the private sector. Therefore, we clearly need to provide an enabling planning and consenting regime for that. We think that is there under the Minerals Planning Policy Wales regime. Shortly, you will see a document produced in DECC, but with our support, which will be a regulatory roadmap very clearly outlining all the people that the developers should be talking to. In the end, one's opinion as to how important gas might be to the economy of Wales, in terms of Welsh production, will clearly depend on what the developers find.

I would say that in a global context gas is very important wherever it comes from, because it is a major replacement for coal.

Q192 Chair: The British Geological Survey are also doing a report for the Welsh Assembly Government into how much gas is there. Do we know when that report is likely to be published for the public?

Ron Loveland: We are due to receive it early in the new year.

Q193 Jonathan Edwards: I want to phrase my question in a different way, again looking hypothetically at a situation whereby Wales had full control. Knowing what you know now as an energy expert, would you be excited by shale gas or sceptical?

Ron Loveland: I could be tempted by either position, depending on how much is there. If there is an awful lot there, you can look at what shale gas has done for the economy of America, and clearly from the perspective of the well-being of the citizens of Wales that could be a very exciting position. On the other hand, whether we can extract it in an environmentally acceptable way is another matter, which needs to be looked at very carefully.

Q194 Chair: We have heard that tens of thousands of wells would be needed to drill economically for shale gas in the UK. Is that the case? If so, would it be possible to do that in Wales?

Ron Loveland: As far as I understand it—this is highly speculative—I do not think we would be talking about tens of thousands of wells. DECC is about to embark on a strategic environmental assessment, which I think will illuminate this more. If you look at the situation in America and the sort of reports that have been produced here by the Institute of Directors, if we follow the route of America, we will be talking about well pads with 10 wells and 40 so-called laterals going out horizontally.

Q195 Chair: Do each of those 40 laterals count as a well?

Ron Loveland: It depends on who you are talking to. They would certainly include fracking operations.

Q196 Chair: So when people, or—dare I say it?—some of those who are opposed under all circumstances to fracking talk about tens of thousands of wells being needed, what they actually mean is tens of thousands divided by anything between 10 and 40, because that is the number of well heads that could be coming off one well.

Ron Loveland: I think so. They are talking about the number of drilling operations.

Q197 Chair: That is interesting. How long would it be before we could have a viable industry in Wales? How many years are we looking at, assuming of course that the gas is there?

Ron Loveland: That is a very difficult question. The answer must be anywhere between five and 15 years. If you look at some of the future energy scenarios produced by people like National Grid, they predict that in a middle course about 6 billion cubic metres of gas will be produced by 2030, but they will admit that that is a guesstimate like any other. Clearly, if you look at the pace of development in America, particularly over the last five years, parts of America have gone from nothing to being boom towns over a four-year period.

Q198 Chair: Do you have any idea what sort of salaries are being commanded by people who are doing general labouring-type jobs on those operations?

Ron Loveland: I can only go by what we are being told by people like the Institute of Directors.

Q199 Chair: Are these minimum wage jobs?

Ron Loveland: I think they are, allegedly, about £50,000 a year. DECC will be doing a major study into this.

Q200 Chair: That is very interesting. Obviously, we have been looking at some of the companies who are involved. The names that have come up are Cuadrilla, IGas and Coastal Oil and Gas. They seem to be very professional, largish companies, but nothing like the size

of the big five independent oil producers. Are these companies big enough to do what they say they want to do?

Ron Loveland: I think they are big enough to start the process. Once again, if you look at the American experience, it was not big companies that led the way; it was often people spinning out of the smaller companies, and this guy, George Mitchell. Wells are very expensive. They cost a few million pounds apiece. There will have to be sufficient bonds in place for restitution. It will be an area where a lot of exploration will be done by the smaller, entrepreneurial operations, but what will happen in the long term is another matter. I understand that Centrica is taking a stake in Cuadrilla. One would expect that to happen more generally.

Q201 Jessica Morden: If shale gas production takes off in Wales, what do you think a reasonable financial benefit should be for the Welsh Government to have from the UK Government?

Ron Loveland: We cannot answer that question at the moment. There is an interesting independence vote taking place north of the border in the near future, and that is very much around what is called Scottish oil and gas. I am told that, if you look at the Welsh Government response to the Silk Commission, it would allow us to talk to the Treasury about taxes coming to Wales. One might argue that, if the Treasury is content for things like landfill taxes and aggregate levies to come to Wales, why should we not be discussing with them possible revenues from shale gas? But that is clearly very speculative and a matter for political debate as much as anything else.

Q202 Jessica Morden: In some of the written evidence we have had, it has been suggested that the Welsh Government might invest in the development stage of shale gas production and therefore could enjoy a financial interest in any profits. What do you think about that?

Ron Loveland: The ownership of energy assets is clearly a matter of topical debate. It might be easier for public ownership, whether it is Welsh Government, UK Government or local government, of things like wind farms and solar farms. Going into the world of drilling, where, as I understand it, you might drill 10 dry wells before anything is found, takes us into an interesting area from the public perspective.

Q203 Jonathan Edwards: You raised an interesting point about revenues, which highlights my interest in this issue as a Treasury spokesperson for my party. With that in mind, and given that there might be potential for negotiation between the Welsh and UK Governments, wouldn't it be better for the Welsh Government to take a proactive approach in relation to this issue and perhaps being obstructive in terms of the UK Government's ambitions, rather than having a hands-off, nothing-to-do-with-us approach, which seems to me to be the case at the moment?

Ron Loveland: Whatever you think of the devolution position, I find it difficult to argue that we should not have anything but common cause at this stage between the Welsh Government and the UK Government to find out what is there.

Q204 Glyn Davies: We keep asking you to look into a crystal ball today on a few things. What impact might shale gas have on the greenhouse gas emissions target of the Welsh

Government? If you look at it one way, you can see it as greatly reducing the emissions, as it has done in the States. There has been a massive impact and it is lauded as being a way to reach the decarbonisation targets. Yet we have evidence from other people who come and tell us that it is still a fossil fuel and it is going to increase them. What is the Welsh Government's view on whether this is going to help them to achieve their ambitious targets, or otherwise?

Ron Loveland: As it happens, I believe Alun Davies, the Natural Resources and Food Minister, will be making a statement on our climate change policies tomorrow in the context of our 3% per annum reductions. Stepping back, I have read some of the evidence that has been given to this Committee. As you said, clearly some of it is coming from an absolutist perspective of renewables good, gas bad. If you look at it from the well-being of the Welsh people perspective, you cannot take that position. Yes, we have a moral duty to move to a low-carbon world, but we have to do it in a way that is economically and socially responsible.

If the science is correct, global warming will be driven by the amount of carbon in the atmosphere. Over the next few years, that is going to be driven mostly by what is happening in China, America and India. It is clear that they are on high fossil fuel trajectories. As I say, we need to show the way in an economically sensible way, but I think that has meant that we focus at the moment on things like energy efficiency and more effective public transport and so on, and accept that gas is a transition fuel. We cannot simply quickly move to an all-renewable system, because at the moment it would be a very expensive option, which the rest of the world would not follow.

Q205 Glyn Davies: That is entirely logical, if I might say so. The other area I wanted to ask you about is hydraulic fracturing. What view does the Welsh Government take? We read issues about this. We read that it is going to cause earthquakes and damage, yet the evidence we get tells us that there is no evidence to support any of these things at all. There will obviously at some stage be applications for wells, and for fracking in those wells if the gas is not flowing as it would do with fracking. What investigations have you done to prepare a view on that? It is quite a controversial issue.

Ron Loveland: From a Welsh Government perspective, we try and talk to the experts. We talk frequently to the BGS. We had a very interesting UniGov joint seminar between senior Welsh Government officials and experts at Cardiff university, including Hywel Thomas, who has given evidence to this Committee. We have talked to Hywel about the report by the Royal Academy of Engineering, which has used experts to look at this. We are conscious that DECC, following the incidents in Lancashire, have imposed traffic-light systems. Providing that the fracturing is done carefully and is properly monitored, it appears that we should be okay. It clearly depends on the developers having the right plans and for the right monitoring to be in place. You have taken evidence from the HSE about the way that they would be undertaking that monitoring. If I understand the geologists, because we are talking about something so deep and not creating voids, we would not have the dreaded problem of subsidence. It is just a question of whether there might be seismic tremors if you happened to lubricate a fault. You have heard from people like Cuadrilla that they will be much better in the future at doing 3D seismic work than they have been in the past. Personally, I think that with a combination of learning from

experience, both in America and here, and very careful regulation and monitoring, it will be okay, but monitoring will show.

Q206 Glyn Davies: From the Welsh Government's point of view, you will be looking at this issue without the preconceived positions that an awful lot of people have taken. If the developers can satisfy you, and the Government go into this with an open mind in Wales, and if there is no danger of seismic activity and no evidence of any threat to the water supply, there is no obvious reason why the Welsh Government would want to oppose shale gas.

Ron Loveland: If that is the situation. However, we have a duty, as you have also discussed, to engage with the public and to discuss what the real evidence is. We hope that some of that will be done. Some of you may be aware that, under the Future Generations Bill, we will be having so-called national conversations. The first of those will take place in spring next year, led by Peter Davies, our sustainable futures commissioner. We would expect energy, including shale gas, to be part of those national conversations. It is not just a matter for the Welsh Government; it is also a matter for the people of Wales.

Q207 Chair: DECC have made estimates somewhere of their view of the future price of fossil fuels, because they have used that as the basis for justification for a lot of renewables. I presume I am right in thinking that they have an estimate of what they think fossil fuels will cost.

Ron Loveland: They have a range of estimates.

Q208 Chair: Does that range of estimates take account of the possibility that shale gas could, in theory if we had the United States' experience, halve the price of gas in the UK?

Ron Loveland: I do not think that the lower band of the figures I have seen takes that into account.

Q209 Chair: Is it possible that, if this industry takes off in the next four to five years, all the financial justifications that we have been given for the subsidies for renewables, particularly on offshore wind and to some extent nuclear as well, will be seen to be incorrect?

Ron Loveland: I would defer to Dieter Helm on this. I do not know if you have seen his evidence to the House of Lords Economic Affairs Committee on this subject. He is far more expert than I on the subject. There are many, many unknowns, but clearly with oil, gas and coal, one is in a world of supply and demand. If gas turns out to be ubiquitous around the world, and is accessible, supply is therefore much greater than demand, and clearly the possibility is that gas prices will either stabilise or fall. Every expert I talk to suggests that it is a fool's game to try and forecast fossil fuel prices moving forward.

Chair: A fool's game?

Ron Loveland: Yes.

Chair: So what have DECC been engaging in over the last few years? Never mind; I think I know the answer.

Q210 Guto Bebb: There is little doubt that the impact of shale gas on the US economy has been entirely positive. The evidence we have heard in relation to this inquiry to date has been generally of the view that shale gas could be positive for the Welsh economy, but there have been some dissenting voices. All things being equal, if there were fairly significant accessible deposits in Wales, do you believe that would be a beneficial thing for the Welsh economy? There is no politics behind that; it is just a simple, straightforward question.

Ron Loveland: I honestly do not know. There are so many scenarios that you could develop. I think that, if shale gas turns out to be ubiquitous around the world, it would be positive for the Welsh economy because the price of gas overall will go down. In terms of what will happen in Wales, I can see that, if there are substantial amounts of gas being extracted, there will be significant community benefits, and hopefully significant revenue and jobs benefits, but whether the situation in Wales will make us competitive with other parts of the UK, I have no idea. At the moment it is suggested that the Weald is the most interesting of the areas to investigate because there might be shale oil as well as shale gas. If that happens, it is a very rich resource indeed. Even if it is there—and we do not know that—we do not know how we will be positioned compared with other parts of the UK.

Q211 Guto Bebb: You touched upon job benefits in particular. I think Professor Kevin Anderson was quite negative about the potential job benefits, arguing, for example, that the developments in Point of Ayr have seen people being brought in to do the specialist work in that development. I think that is a very negative view; in fact, as somebody who represents a constituency in north-west Wales, what I am seeing is the Welsh Government investing jointly with local authorities to try and prepare the ground for the nuclear sector. If there were deposits of shale gas being identified, would there be any problem with the Welsh Government doing the same thing as they are doing with Energy Island in Anglesey in relation to shale gas, in terms of preparing people for the opportunities that might exist?

Ron Loveland: Not at all; we would very much do that. I think I would take issue with Kevin Anderson on his point. He raised the point about the construction of a power station; as you will know, in terms of the nuclear world there would be 5,000 construction jobs, but they are likely, on Wylfa, to be there for 10 years. They are not temporary in the classic sense. If I understand the world of shale gas, because you are constantly refracking and so on, those construction jobs would not be temporary. Therefore, yes, initially many of the people would come from elsewhere because they have the expertise, but the Welsh Government would be duty-bound to try and ensure the development of the skills, in the same way as you had the development of those skills in Aberdeen.

Q212 Guto Bebb: You would see the Welsh Government taking some responsibility for the development of the supply chain to service the sector, if there was a viable sector within the Welsh economy?

Ron Loveland: Yes, as we are doing with nuclear at the moment.

Q213 Guto Bebb: On community impact assessments, which you also touched upon, obviously some industry figures have been highlighting the fact that local communities could greatly benefit from community packages as a result of these sorts of developments. I am intrigued by the fact that these community benefit packages, when related to the green industry or wind farms for example, are described by people as a good thing and empowering

local communities, but when it happens in relation to shale gas it is described as blackmail. Can you see any specific difference between the two packages that might be in place in terms of community benefits, or is it dependent upon your view as to whether something is good and not bad?

Ron Loveland: I will try not to go there. I would comment that for things like wind farms and solar farms, the ideal situation would be community ownership or perhaps local government ownership. That is clearly not possible with the very large wind farms that concern some of you. Therefore, you are more in the world of community benefit. I suspect, because of the cost of shale exploration, it is more akin to that situation with large wind farms.

Q214 Guto Bebb: Less controversially, obviously trust and confidence are important in this sector. It is an unknown quantity, to an extent, and a lot of stories out there tend to give a negative impression of the sector, or the industry. To what extent do you think it is a responsibility of the Welsh Government to inform the public of the potential impact of shale gas? Is it a responsibility for Westminster, or is it a shared issue?

Ron Loveland: I would see it as a shared issue, but an area where we should be active, particularly, as I have mentioned previously, through the national conversations under the auspices of the Future Generations Bill. More generally, you will see from “Energy Wales: A low carbon transition” that we want to show leadership in the energy sector, which means that we have to make clear our views on the way forward. It is just that in the world of shale gas there are so many unknowns that the sensible and responsible thing to do is to operate under the precautionary principle.

Q215 Jonathan Edwards: From the information and the evidence we have had, some witnesses claim that the Welsh Government is negligent for not producing a technical advice note for unconventional gas exploitation in Wales. What is your response as the adviser?

Ron Loveland: We would disagree very strongly with that. We have been looking at the situation, and we will continue to look carefully at the situation. We believe that the guidance and regulation that come from the mineral policy planning and planning policy Wales are very similar to the guidance that is coming from DCLG. You will see from the regulatory route map, which hopefully will be with you later this month, that we are operating in a very similar regulatory regime. We recognise that our planning system needs to be improved. Last week you saw the announcement on the proposals for the Planning Bill, and the so-called positive planning proposals. I think that will provide an avenue for us to do even more in a more effective way than we have done so far, but we would categorically deny that we have been negligent.

Q216 Jonathan Edwards: Some Welsh local planning authorities are using guidance from the Department for Communities and Local Government developed for English LPAs. If there was a Minister here I would ask him, “What happened to standing up for Wales?” As you are the adviser, is this something that the Welsh Government are concerned about or not?

Ron Loveland: No, because the planning and consenting policies that we work to cover the situation very well. If you look at the Communities and Local Government guidance, it

is very much a factual bringing together of the processes that developers should follow. You will see that here very soon through the regulatory road map.

Q217 Jonathan Edwards: In England, the Environment Agency and the HSE carry out joint visits to shale gas sites. Are you concerned that the recent upheaval we have had in Wales, creating Natural Resources Wales, has compromised their regulatory role?

Ron Loveland: No. I have personally spoken to Emyr Roberts. I know others have talked to NRW, and you have had evidence from Trefor Owen. I think they are well on top of this issue. They are talking with the HSE about joint working as we speak. Clearly, if this turns out to be a massive opportunity there will be resource issues, but they will be dealt with in the usual way.

Q218 Jonathan Edwards: Some witnesses have called for mandatory environmental impact assessments to be undertaken before any exploratory operations are undertaken. Do you think these should be mandatory in Wales?

Ron Loveland: As far as I understand it, they would normally come into play, if the local authority so requests, for actual exploitation of gas. We are at the stage of simply putting down exploration wells, and all the evidence indicates that there is not a need for the EIA; but that area will be illuminated by the strategic environmental assessment that will be undertaken by DECC. I would also refer you to the evidence from your last session, where the EIA just provides a framework for people to undertake the environmental work rather than requiring a higher standard of action per se.

Q219 Glyn Davies: Do we have any idea at all about the extent of the possibility within Wales, geographically? We will know about the Vale of Glamorgan, and the Bowland Basin may well come as far south as Wrexham, I suppose. Do you know where in Wales there might be possibilities?

Ron Loveland: We have some data from BGS work in terms of the Bowland extension into north Wales. Those figures indicate very small amounts relative to the potential deposits in Lancashire. The BGS study that we have currently commissioned will look at the possibilities across Wales. The early indications are that most parts of Wales have the layers that could produce shale gas. The exception is probably Anglesey because of its granite. I am also told, which I discovered the other day, that the slate you have in north Wales is just compressed shale deposits. We will have a much better picture when BGS have undertaken their work. How much they will be able to say until we actually put boreholes down is very difficult.

Q220 Glyn Davies: It is interesting that you think that most parts of Wales apart from Anglesey could have possibilities. That is what you just said, isn't it?

Ron Loveland: Yes.

Glyn Davies: I will leave it there.

Chair: We will be very interested to see that report when it comes out. Thank you very much indeed for coming, Mr Loveland. It is very kind of you. We are sorry for the slight delay.

