



Environment Scrutiny Panel

Energy Policy Review hearing with Jersey Gas

WEDNESDAY, 22nd MAY 2013

Panel:

Deputy J.H. Young of St. Brelade (Chairman)
Deputy S.G. Luce of St. Martin (Vice-Chairman)
Connétable P.J. Rondel of St. John

Witnesses:

Mr. Tony Nicholls, Chairman, International Energy Group
Mr. Neil Shaw, Managing Director, Jersey Gas

Also present:

Mr. R. Levett (Panel Adviser)

[14:30]

Deputy J.H. Young of St. Brelade (Chairman):

Good afternoon, everybody, and welcome to this fourth hearing of the Environment Scrutiny Panel in respect of the draft energy plan for 2050 prepared by the Minister for Planning and Environment. In this afternoon session we have Mr. Tony Nicholls and Mr. Neil Shaw, who have kindly come over to us from the Isle of Man, I think, is it not?

Chairman, I.E.G.:

I am from the U.K. (United Kingdom).

Deputy J.H. Young:

Thank you for coming over to come and give evidence to us about the position of Jersey Gas in respect of our energy policy. Just to cover some logistics. We have set aside an hour for this meeting. If we need to overrun to deal with a matter we will but I think what I am going to try and

do is concentrate questions in that period. So we will see how we go. I will start with some introductions. Myself, Deputy John Young, I am the Chairman of the Environment Scrutiny Panel.

Deputy J.H. Young:

Thank you. Obviously we are in public session so everything is recorded and will be on podcast and you will get transcripts later on. You will have a chance to check detail. On the table in front of you should be a card just giving a little bit of your legal status. What you stay in this room does give you protection from privilege that we enjoy as part of our parliamentary arrangements. We have had the opportunity to look through the written submission that you put to the Minister in January this year, Jersey International Energy Group, your submission to the draft policy and I think what I want to do is start by asking you your views on how your business ... how you see your business contributing to a policy, which is primarily aimed at reducing carbon emissions by 80 per cent. What opportunities do you see how your company and its business can contribute economically, and so on, to those various golden ...

Chairman, I.E.G.:

I think we, in the most general terms, have said we will contribute in the sort of working group processes and I think we would expect to be engaged, for instance, in various studies such as the one into security of supply and resilience, so generally we are very happy to put time into the processes where they are relevant to us, and that would certainly include ... I do not believe there is anything in there that we would object to taking part in. So that is the first thing to say. I think beyond that very specifically, and it is in our written submissions, and we have seen the response to our proposal but we do think natural gas provides opportunities still for Jersey and indeed Guernsey where of course we have a similar business. So we would suggest that a natural gas pipeline study is certainly something that should come to the fore. I see it is referenced as something that may come out of the security of supply study and we can see that link. I think the other thing that is changing quite rapidly at the moment is people's understanding of the potential for shale gas to change the energy market in Europe in perhaps the same way as it has in the US, where in the last 5 to 10 years it has transformed the availability of natural gas and the prices have fallen sharply. I think while there are lots of different opinions that we can all read in the press about shale gas, both from what the true reserves may or may not be, to concerns that some people have about the extraction processes and the risks to the environment, those are all acknowledged but I think there are as many people, or probably more people actually, that believe that all of those things can be overcome, and the first one that there will be sufficient reserves to make the exploration almost inevitable. The opportunity will be so great that the governments will eventually be very willing to exploit those resources. I think we would see that as an additional reason to properly look at a natural gas option for Jersey but it also links to another one about comments, which is I think closer co-operation between the 2 Channel Islands seems obvious to

us when it comes to energy policy, because we, and the other companies, have all got supply chains that are common for our particular energy product, and to deal with it in a way that potentially results in a divergence of energy policy or energy plan would not make sense, and certainly a natural gas option for the Islands for us would have ... the same solution would have to work for both Islands.

Deputy J.H. Young:

Do you see that as being a long term or short to medium-term position?

Chairman, I.E.G.:

In terms of ...?

Deputy J.H. Young:

Shifting to natural gas.

Chairman, I.E.G.:

I think if it was a pipeline project it would be several years obviously to develop and construct a pipeline. It may be quicker to go through a liquid natural gas option so bring the gas in by ship in a similar way to we bring L.P.G. (Liquid Petroleum Gas) in now. That would be a quicker solution.

Deputy J.H. Young:

I was meaning the ...

Chairman, I.E.G.:

The availability of gas.

Deputy J.H. Young:

Well, the very long term in terms of renewable energy and so on.

Managing Director, Jersey Gas:

So heading towards the sort of zero carbon future. I think we are aware that eventually the States are looking to get towards the zero carbon, therefore gas is going to be the difficult bit in that. But we do think it has a very pivotal role to play in the transition. That there is this period between where we are now, what are the next 5 to 20 years going to look like certainly, perhaps 30 years, and that we do think that gas has a very key role to play there while the technology matures because people are saying renewables are very important, and we accept that. But one would imagine that for the States it is much better to be a "me too" player and buying mature, proven, reliable technology rather than being in a vanguard and paying the risk premium for that. We think

that the Island has a need for energy security, energy resilience and at an economic price as well, and that I think is where Neil's point with respect to shale gas, relative abundance, we think that that is going to make the market ... there is a market changing event taking place now where the U.S. gas is one third of the price that it is in Europe.

Deputy J.H. Young:

So is it price that is primarily the gain, as it were?

Chairman, I.E.G.:

I think it is availability as well. If we had been having this conversation 5 years ago there would have been quite a lot of people suggesting that peak oil and peak gas, perhaps, was imminent and we would be running out of such things, but the scale of the potential shale gas reserves are huge in the world. It is not just the U.S. or European phenomenon, China have got huge reserves as well. The information has not yet been released but there are commentators that are suggesting, for example, that the Bowland Field in the northwest of England is possibly going to turn out to be the second largest gas reserve in the world. It is that significant. It is much, much more significant than the U.S.

Deputy J.H. Young:

So price is one. You spoke about the gas pipeline; where does that figure in your scenario if you are changing to a different type of gas?

Chairman, I.E.G.:

A pipeline would come from France, I think obviously. That would be where the connection would need to be made, is the nearest existing natural gas network. I think we do not know exactly where that connection would need to be. It would depend on the capacity of the French system and the alternate demand that would be needed for the customer base. That is part of what would be needed from a study ...

Deputy J.H. Young:

What is the gain? What is the benefit?

Chairman, I.E.G.:

I think back to price and security and resilience. If we look at one of our other businesses in the Isle of Man, the natural gas we supply there is 30 per cent cheaper than the L.P.G. we used to supply in the Isle of Man, which was comparable to our prices here.

Deputy J.H. Young:

Do they have a pipeline?

Chairman, I.E.G.:

They have a pipeline that connects to the U.K. and Irish grid that was installed in the early part of this century, 2001/2002, and they have got a gas-fired power station on-island and they have had electricity interconnector as well as the gas connection.

Deputy J.H. Young:

Is that an investment paid for by the Isle of Man?

Chairman, I.E.G.:

Mostly by the Isle of Man. The pipeline to the power station and the power station itself was the investment by the Isle of Man. Our business made quite significant investment in the original conversion of customers in Douglas to natural gas. We just completed a second phase of conversion last year, where we converted another 6,500 L.P.G. customers where in fact in that case the Government invested money as well to extend the pipeline and they invested the money to convert customers' appliances because the appliances need parts changed and resetting burners and things. So first conversion we made that investment. Second time round the Government made that investment as they had a lot of cost of capital.

Deputy J.H. Young:

So what sort of investment roughly went into that project as a whole? If you had to put a number on it.

Chairman, I.E.G.:

I could not give you a number for ...

Deputy J.H. Young:

Millions?

Chairman, I.E.G.:

Certainly millions, yes. I can tell you what the most recent project cost was and it was just under £20 million in the end. Obviously a very large sum of money. The reason the Government supported it is it was shown to be the least cost option.

Deputy J.H. Young:

How many customers in the Isle of Man does it serve?

Chairman, I.E.G.:

In total now, 22,000 customers.

Deputy J.H. Young:

How many customers have you got in Jersey now?

Chairman, I.E.G.:

About 9,000.

Deputy J.H. Young:

And the network in the Isle of Man? How extensive is that?

Chairman, I.E.G.:

It is a single network in Douglas and then sort of satellite networks that are supplied separately with their own off-takes from the pipeline, so it is not a contiguous network across the whole island.

Deputy J.H. Young:

Am I correct in thinking that our network in Jersey has not been added to for many years?

Chairman, I.E.G.:

Probably not in significant terms. It does have extensions ... has had extensions for new connections but the main scope of the network, I guess, has been in place for quite a long period of time, but obviously mainly involves St. Helier.

The Connétable of St. John:

The life expectancy of the undersea pipeline is how long?

Chairman, I.E.G.:

I believe, it is not my area of expertise the offshore part, but I believe they would be a 40-year ...

Managing Director, Jersey Gas:

It would be a 40-year life but in truth that is really as much as anything is used for the capital investment criteria. A lot of the pipes during their inspection and maintenance get re-lifed anyway so ...

The Connétable of St. John:

That is why I put the question because we have got an interconnect on electricity and the average ... the life is 25 to 30 years, whatever.

Managing Director, Jersey Gas:

You will find that pipelines behave rather more predictably than cables subsea. Providing they are not interfered with too much with respect to trawls or anchors then they do seem to perform more reliably.

Deputy J.H. Young:

Before you were saying a pipeline is an essential part of your submission because it gives you those advantages.

Managing Director, Jersey Gas:

What we are saying is that security of supply via a pipeline is the best. It is extremely reliable. But as Neil said earlier, there are other options that you could bring energy into the Island and so you can benefit from that. Of course what we are talking about here is not just heating but we are talking about the possibilities of transportation.

Deputy J.H. Young:

Can you just explain what L.N.G. is please?

Managing Director, Jersey Gas:

Yes, Liquefied Natural Gas. So that could be brought in via vessel. We are just in the middle of a major investment at La Collette and the new gas-making plant that we have there is able to run on any liquefied gas product so that in itself could run liquefied natural gas.

[14:45]

There will be investment needed for the storage because the pressure is higher to store L.N.G. than L.P.G. but that is another alternative and I think going back to your earlier question, Mr. Chairman, what role could we play? We do believe that we already play a part in supplying efficient boilers and utilisation, condensing boilers and so on, and we definitely see the unit consumption over time has gone down by our customers and we offer a service and advice to customers as well. So we are prepared to visit with them and to advise them on energy efficiency. But at the same time that we have looked at the L.P.G./L.N.G. options we believe there is an opportunity for transportation because liquid hydrocarbons are certainly more carbon intense than energy and we think it could be a cost effective solution potentially for the Island. So we will know what the heating looks like but we think that there could be a transportation opportunity there as well.

The Deputy of St. Martin:

Obviously we are very interested in the Isle of Man scenario because it gives us a vision of where we could potentially go over here. You said that the Government owns the infrastructure on land under the ground, the pipes, and the Government paid for the pipe to come from the mainland. What sort of arrangement do you have with Government for the lease or the use of their infrastructure?

Managing Director, Jersey Gas:

We have a long-term transportation agreement with the Government, so we pay them on a unit transportation basis and basically we have an agreement with them that lasts for 40 years.

The Deputy of St. Martin:

Do you just pay it, like you say, on a unit? It is just as simple as that; the more you sell the more you pay?

Managing Director, Jersey Gas:

Exactly. There is a monthly reconciliation and account that is sent.

The Deputy of St. Martin:

I am not aware the Government own the pipes under the ground in Jersey though. Do you own your own pipes in Jersey?

Managing Director, Jersey Gas:

Yes, we do. Just to perhaps clarify that. In the Isle of Man the distribution network is island-wide, International Energy or Manx Gas as it is there.

The Deputy of St. Martin:

Sorry, I misunderstood.

Managing Director, Jersey Gas:

It is just extensions to the grid so the connection from the Irish interconnector to the Isle of Man was paid for by the Government and then there is an intermediate pressure system off that which has been most recently constructed, which is a 4-bar system. That was part of the project that Neil referred to earlier in the £20 million investment. That was provided as the key infrastructure. That then ties into the Manx Gas distribution network, just as you have here, that we own. The interesting thing that not everybody may be aware of is that Neil mentioned that there is an electricity interconnector in the Isle of Man but also they do on-island generation and export back

to the U.K. grid, and they appear to be finding that relatively advantageous at the moment so they have got the ability to take their energy directionally, so they can import, export, they are using ...

The Deputy of St. Martin:

Are they using gas to power up the power station?

Managing Director, Jersey Gas:

Yes. So they are using gas to generate, there is surplus to the Island's requirement and they are exporting to the U.K.

Chairman, I.E.G.:

But they can also import electricity so if their own power stations ...

The Connétable of St. John:

What is the account cost per running mile of the pipeline? A ballpark figure.

Managing Director, Jersey Gas:

For the new pipeline?

The Connétable of St. John:

For the new pipeline undersea, what is it per running mile?

Chairman, I.E.G.:

It is not ... we would have to come back to you on that. It is not something that we ...

Managing Director, Jersey Gas:

I have not got a number I could reel right off the top of my head but I would be happy to come back to you.

Deputy J.H. Young:

The Isle of Man obviously is interesting, to put that in context, what is the relative importance of gas, electricity and fuel oil in the Isle of Man? What is the mix? We know what it is in Jersey but what does that effectively result in?

Managing Director, Jersey Gas:

Gas is about 40 per cent of the domestic heating load. Oil is about the same and the balance is electricity.

Deputy J.H. Young:

So primarily the use of gas is using electricity generation on Island?

Managing Director, Jersey Gas:

Sorry, that is the utilisation so that would be commercial, domestic, industrial utilisation in those proportions, and about 50 per cent of the total gas capacity for the Island is reserved for power generation. They have one power station at Pulrose presently but they designed the system, this latest system extension was completed in 2011 to be able to convert the power station, a power station in Peel and a power station in Ramsey, so they have got now the gas infrastructure to do that if and when they deem the time is ...

The Connétable of St. John:

What is the population on your island?

Managing Director, Jersey Gas:

About 80,000.

Deputy J.H. Young:

You are a lot physically bigger, are you not?

Managing Director, Jersey Gas:

Yeah, geographically, yes. You could say that works against you.

Deputy J.H. Young:

In your introduction you said about working pan-Channel Islands, doing it co-operatively. What is the situation in Guernsey? Are they similar to us with a declining network or declining use?

Managing Director, Jersey Gas:

Yes, it is very similar.

Chairman, I.E.G.:

The customer numbers are pretty stable. Condensing boilers are more efficient than pre-condensing technology so what we have seen over the last 10 or more years is obviously condensing boilers are replacing older boilers and that is reducing people's consumption of energy. In terms of the businesses they are pretty much the same sort of scale.

Deputy J.H. Young:

Would I be correct in saying the amount of investment that the company has made, certainly in Jersey, has not been very great over recent years; would that be true?

Chairman, I.E.G.:

I do not think it would be true. No, we spend several million each year ...

Deputy J.H. Young:

Being capital investment.

Chairman, I.E.G.:

Maintenance, capital and some growth capital.

Deputy J.H. Young:

Can you just explain a bit some of the investments you have made?

Chairman, I.E.G.:

The one that we are doing at the moment, Tony and I visited the site today, this is a project that is more than £3 million to rebuild the gas-making plant for the Island.

The Connétable of St. John:

Is that because of the fire at ... towards Tunnel Street?

Managing Director, Jersey Gas:

No.

Chairman, I.E.G.:

It is not because of it because the project was already designed and started before the fire. So the intention was always to decommission the gas holder that you mentioned with the fire last summer. So it is a pretty significant investment. But these are capital intensive businesses. We have to replace a certain number of metres each year and pipelines need replacing, the storage equipment needs fairly costly maintenance activity to keep it in good working order.

Deputy J.H. Young:

I apologise if I got it wrong; I got the impression you have not extended your domestic network, have you?

Managing Director, Jersey Gas:

No, okay, so there are 2 different things here. One is, as Neil has explained, is the need to spend capital in order to maintain the system. The rest is growth and we do know that gas on these islands, particularly in Jersey, is a relatively expensive commodity and so that we have not had the opportunity to grow the business.

Chairman, I.E.G.:

We will not say there is no growth. We do make new connections but it is not significant numbers.

The Connétable of St. John:

That is correct, because I recall you just built some ... put some flats on the new waterfront and the marina being powered by gas.

Chairman, I.E.G.:

Yes, and we have put C.H.P. (combined heat and power) equipment in some of the hotels and things like that in recent years, so there are those sort of new areas coming on.

The Connétable of St. John:

C.H.P. being?

Chairman, I.E.G.:

Combined heat and power, so it works well in a hotel that has got a large heating load in the summer. It can use the surplus power that can come out of those units.

Deputy J.H. Young:

Looking to the future then, if we have a static number of consumers you said that you are expecting to get major price advantages and better reliability of supply if the pipeline project were looked at and went forward. What about the number of consumers then? Is that a scenario of planned growth then?

Chairman, I.E.G.:

I think we would expect, as we have expected and we have seen in the Isle of Man, is to switch from L.P.G. to natural gas gives a price advantage. It gives some other advantages in that the appliances are more readily available so people can buy gas appliances more easily with natural gas than L.P.G., and so we have seen what we say is modest growth. So we do get modest growth of customer numbers in the Isle of Man and that is I think largely constrained. There is no evidence of it. It is opinion, I think, really. What we see is when customers come to having to replace a boiler, if they have an oil boiler then they will more readily switch to natural gas perhaps

than they would have done if it had been an L.P.G. solution on offer. So we do get slow growth in the Isle of Man. But we are talking a few hundred customers a year. It is not wholesale switching from oil to gas.

The Connétable of St. John:

So within the Isle of Man do you have connections to the, shall we say, biogas or anaerobic digesters?

Chairman, I.E.G.:

There is not yet. But there is a potential.

The Connétable of St. John:

Are you looking at working with the agricultural industry where you have got large herds of cattle and whatever and picking up their excess gas?

Chairman, I.E.G.:

We have not got anything moving at the moment but, yes, we will be very willing to ...

The Connétable of St. John:

And you would be willing to do that in Jersey?

Chairman, I.E.G.:

Yes, and we met with Louise just a few weeks ago and brought somebody over to provide some information on a range of natural gas issues, so including the shale gas aspect we talked about, natural gas for transport, but we also talked about anaerobic digestion and biogas solutions more widely. The guy that we brought over is somebody that is doing something. He is involved in all of the key projects that are going on in the U.K. He is working for Cuadrilla on the shale gas, for example. He is working on a number of schemes to put gas back into the grid because that is becoming a favoured approach rather than generating power with the gas that is put back into the existing infrastructure and distributed for primary use.

The Deputy of St. Martin:

Could I ask perhaps a couple of quite practical questions about the pipeline? You have got the pipeline under the sea; what facilities do you have at either end? To be quite clear, does it just plug straight into the main or do you have to have receptive facilities at both ends that catch and then re-pressurise and send out?

Chairman, I.E.G.:

No, well I guess in the ... if we talk about what we have in the Isle of Man and what the Government there have got, is you have a pressure regulator. You do not need to re-pressurise it. The distances are short enough so that there is no need to ...

The Deputy of St. Martin:

Sorry, what distance do you have in the Isle of Man from the mainland, as a matter of interest, do you know?

Chairman, I.E.G.:

The pipeline connection is to a pipeline that connects Scotland with Northern Ireland. Again, I am just ...

Managing Director, Jersey Gas:

It is relatively short. It would be of the order of about 10 to 15 kilometres.

The Deputy of St. Martin:

Okay, that gives us an indication.

Chairman, I.E.G.:

But all they have onshore, where the pipeline comes onshore, at the end of the pipeline before it connects to our network is a pressure regulator. So a fairly small bit of equipment to control the pressure.

The Deputy of St. Martin:

Your acreage at La Collette, for example, would be more than adequate to cope with a pipeline system if it came in from France?

Managing Director, Jersey Gas:

Yes.

The Deputy of St. Martin:

You would not need any more space there?

Managing Director, Jersey Gas:

I think it is not played out in this document but part of the conversation that we think may be of merit and interest to the States as well is that there could be some L.N.G. planning benefits from

this because presently the storage facility that we have La Collette has certainly a bit of risk in that therefore there needs to be the planning. A pipeline could free up that.

The Deputy of St. Martin:

To be clear, there would not be any ... if a pipeline came ashore there would be no storage of gas at La Collette at all?

Managing Director, Jersey Gas:

No storage at all.

Chairman, I.E.G.:

We would probably keep a small amount of L.P.G. there for other customers but it would be much reduced capacity.

The Deputy of St. Martin:

If I could just move on to costs. You mentioned quite early on about the cost of converting households. Can you just tell us roughly what the cost of converting from L.P.G. to natural gas is for a normal house?

Managing Director, Jersey Gas:

It does depend on scale, so if I were to share with you the latest Manx experience, 6,500 cost £8 million.

The Deputy of St. Martin:

So it is quite a lot of money per house.

Managing Director, Jersey Gas:

Yes, the unit cost is high.

The Deputy of St. Martin:

Over £1,000.

Chairman, I.E.G.:

But I would sort of come back to it is always the cost benefit and the alternative. What the Manx Government did was they looked at what their other options were and one option would have been to have switched the customers from L.P.G. across to oil but they did not want to do that because it would have raised the carbon emissions going from L.P.G. to oil. The only other viable

alternative was an electricity solution and the Manx electricity company's assessment was of significantly more cost than the £20 million that it was to do the project we eventually did.

[15:00]

The Deputy of St. Martin:

How long do you estimate that it is going to take a household to pay off that £1,000-plus conversion? Do you have any idea whether it is 3, 5, 10 years?

Managing Director, Jersey Gas:

It is on 40-year payback.

The Deputy of St. Martin:

It is on a 40-year ...

Managing Director, Jersey Gas:

That is the basis of the investment.

Chairman, I.E.G.:

But what we did, coming back to the price point, at the point the project was completed, all of those 6,500 customers had gone on to a tariff 30 per cent lower than the tariff they had been on previously.

The Connétable of St. John:

So getting back to the pipeline - and I am sorry to harp on about this - but if you came ashore, shall we say, on the east end of the Island and brought a main through down to the likes of St. Helier, you would have the added advantage of being able to connect a big percentage of the population who do not have gas at the moment, other than bottled.

Managing Director, Jersey Gas:

Yes. We would not do it via that pipeline.

The Connétable of St. John:

No, but you would have the trench open to put a secondary pipe in.

Managing Director, Jersey Gas:

What I would say is that is a very specific question, and it is a high-pressure pipeline. What you do is you bring it into a given point and you have a distribution network. The expansion of the

distribution network though is if you get the price point right it will pay for itself, and we are very happy and we make those investments, and we are happy to make long-term capital investments for that kind of work.

Chairman, I.E.G.:

There is another pipeline that takes the gas currently from La Collette to St. Helier.

The Connétable of St. John:

No, I am talking about to the east of the Island.

Chairman, I.E.G.:

To the east of the Island.

The Connétable of St. John:

Down to Gorey and the likes, where you have got a higher density of property along that coast road.

Managing Director, Jersey Gas:

Yes, that could be done quite easily and ...

The Deputy of St. Martin:

But it would be a separate pipeline?

Managing Director, Jersey Gas:

It would be a different type.

The Deputy of St. Martin:

There is a differentiation between a high-pressure pipe that is coming in.

Managing Director, Jersey Gas:

Yes, absolutely.

The Deputy of St. Martin:

The manifold on them is smaller. Yes, okay.

Deputy J.H. Young:

Would it be fair to say though at the moment, where we are now is that people will generally find it completely not financially viable to shift from other fuels to gas?

Chairman, I.E.G.:

They would not see the price advantage that if you were in the Isle of Man or the U.K. that would ...

Deputy J.H. Young:

But in terms of our local circumstances, they would be unlikely to do that?

Chairman, I.E.G.:

Purely on price, yes, they would be unlikely to. They may still switch for other reasons, of course.

Deputy J.H. Young:

So in your scenario of the role that the company can play in the future under this new scenario, what percentage difference would you expect consumers have the prospect of getting in terms of price? Do you have a vision of it?

Managing Director, Jersey Gas:

We could not postulate that, but what we could say is that through Neil's introduction with Shell Gas, we certainly know that the Henry Hub, which is the central pricing mechanism in the United States, is one-third of what it is in Europe today. So we have said that we believe gas has a transitional role to play perhaps for the 30-odd years while renewables are maturing and becoming more economic. During that time, we believe - and the evidence is starting to come out - that it could be a very significant reduction in the world price of gas. So we are not just talking about today's differential, but within the next 12 months we believe that you will see a very, very different world gas market emerging and one of the things that we are very grateful for having the opportunity to be here today is to bring that to Members' attention, that you may wish to go and find out a bit more about that, because the world is changing. It is rather confusing. You have already D.E.C.C. (Department of Energy and Climate Change) in the U.K. starting to establish ...

Deputy J.H. Young:

D.E.C.C. is, sorry?

Managing Director, Jersey Gas:

The Department of Energy and Climate Change in the U.K. They have already set up a special group to deal with Shell. They are very, very keen to support it, and remember that, for instance, the U.K. is talking about putting coal-fired power stations in, and has been, and they are now talking about gas. If you are sitting on a lot of gas, this could change the economics, so I am afraid I cannot answer your question to you directly but it is an economic gain that is emerging here, and so this piece of work that you are embarking upon here is very timely.

Deputy J.H. Young:

Maybe I will just approach that question in a different way. Obviously shifting from one fuel to another, what is the advantage in reduced carbon emissions then?

Managing Director, Jersey Gas:

Well, it is very significant, the reduction. I cannot remember right off the top of my head what the difference is.

Chairman, I.E.G.:

Just between L.P.G. and natural gas, there is some advantage. I believe it is something less than 10 per cent. It is not insignificant, but it is of that order.

The Connétable of St. John:

Could you let us have the figures?

Chairman, I.E.G.:

Yes, we can provide those. I think maybe this is potentially a significant point, I guess, but we had not even thought about this ourselves until we invited the expert speaker over I mentioned earlier. Because he was working with Cuadrilla on some of the Shell Gas projects in the U.K., he asked them: "Is there any shale gas close to or under Jersey?" and the answer from Cuadrilla was they did not believe that there would be any shale gas under the Island itself, but they said it is quite possible that there could be shale gas within the waters. That is simply from a simple analysis, I believe, that there is lots of shale deposits in the U.K. mainland. Also in Continental Europe, one of the large basins is called the Paris Basin, which obviously centres itself around Paris and comes towards the Normandy coastline. So their analysis was: "Well, there could well be, but nobody has ever done any assessment."

The Deputy of St. Martin:

We are aware obviously that the electricity system in Europe and the U.K. is all interconnected and it is possible to move electricity in all various directions backwards and forwards. Do you enjoy that same facility in the gas world? I am not aware, or do you have smaller hubs that just go around cities? Is France connected to the U.K., for example, by gas pipeline?

Managing Director, Jersey Gas:

Yes. It is via Holland, yes.

The Deputy of St. Martin:

So it is in theory possible, although obviously it would not physically happen, but you could buy your gas from a U.K. supplier and have it piped into Jersey? It might not be the same gas, but the way the electricity works?

Managing Director, Jersey Gas:

Yes, the grid is somewhat sparser than the electricity grid, but it exists and operates in just the same way.

The Deputy of St. Martin:

Have you any idea at all? We are not aware, but do you have any idea at all what the proliferation of underground gas is in Normandy? Do they use gas services?

Chairman, I.E.G.:

There is a transmission network in that northern part of France. Yes, there is.

Deputy J.H. Young:

I wonder if I can switch the subject to other opportunities to reduce energy. In your submission, you mentioned the transport sector, alternative power vehicles. Do you see any opportunities for your company to make a contribution in that area?

Chairman, I.E.G.:

I think we have tried in the past with L.P.G. vehicles. We have had some of our own and we have supported people that have converted their vehicles. It is fair to say it never picked up in any significant numbers.

Deputy J.H. Young:

Why was that, do you think?

Chairman, I.E.G.:

Why was that? I think it has been difficult because of pricing and there is a storage requirement as well; you need to convert the vehicles. I still believe there are not any vehicles manufactured for L.P.G. There are some, very few, for natural gas now, so I believe both Volvo and Volkswagen provide vehicles in Continental Europe designed to run on natural gas.

Deputy J.H. Young:

What about biogas?

Chairman, I.E.G.:

Yes, you could use biogas as well.

Managing Director, Jersey Gas:

I think to pick up on what Neil is saying, I know that we talk about road transport, that that is possible. Again, it comes down to the price point, what is going to happen to liquid hydrocarbons; do we really think that electric vehicle technology is mature enough and is going to keep ... it is very interesting when you look at this that ...

Deputy J.H. Young:

What is your view?

Managing Director, Jersey Gas:

Our view and from the conversations that we have had is that the electric vehicles just about compete with probably liquid hydrocarbon vehicles of 5 to 8 years ago. The new technology for diesel in particular, but also in gasoline energy, is clean, economical and reliable, but we think that gas could play a role in that, and also there is the marine. There is probably not a lot of bunkering that happens from Jersey, but certainly the marine industry is taking a very big interest in liquid natural gas now for powering vessels, and that is becoming a pretty essential part of the future design of marine transport.

Deputy J.H. Young:

As opposed to diesel?

Managing Director, Jersey Gas:

As opposed to diesel, yes. That is both heavy fuel oil type and also diesel power.

Deputy J.H. Young:

That is cost and consumption and efficiency?

Managing Director, Jersey Gas:

It is mainly carbon. It is carbon that is driving that.

The Deputy of St. Martin:

Getting back to the cars, if all of a sudden the price of gas made running your car on natural gas look very attractive, what physical problems would we have on the Island? I expect we would have to install storage facilities at a number of forecourts around the Island in order to provide that which we do not have at the moment, or is it as simple as just plugging into the main?

Chairman, I.E.G.:

There are home fill solutions. It is fair to say they are perhaps not particularly well-developed but you can fill a gas vehicle converted to natural gas overnight by plugging into your home gas connection. That is one solution.

The Deputy of St. Martin:

The tank on the vehicle, would that be under greater pressure than it would be coming out of the main? Would you have to pressurise it?

Managing Director, Jersey Gas:

Yes. Yes, it is pressurised.

Chairman, I.E.G.:

It is higher pressure than you would use inside your house, yes.

Managing Director, Jersey Gas:

There are commercial installations and there are companies in the U.K., transportation companies, that power diesel vehicles, so they enrich the fuel using liquefied natural gas. They just take it from the normal grid and it is a device that is about the same size as a petrol pump and it compresses the gas to using that.

The Connétable of St. John:

Can I move on to the bottle gas? Currently you have your plant set up on my Parish in St. John. Would it be your intention to keep bottle gas going or will you be looking at extending your network on conventional pipelines?

Managing Director, Jersey Gas:

Again, in the event that we had a product that had an attractive price point, then we could extend the distribution system for that.

Chairman, I.E.G.:

But again, referring to what we have got in the Isle of Man, one thing we have not covered is even with the projects that we have described, we have still got around 2,000 customers left on L.P.G. and quite a lot of those are either bottles or local storage vessels, but some of them are on small networks where it might have only been 20 or 30 properties, but too far from the rest of the network to make an interconnection viable. When we developed this project with the Manx Government, one of the suggestions we put forward - which they supported and has now been implemented - is we were conscious that we were getting to the point where 22,000 people in the

Island were getting the advantage of natural gas and potentially 2,000 people, just by the accident of their location on the Island, were not, and they had to use L.P.G. At that ratio, less than 10 per cent left on L.P.G., we all accepted very openly a cross-subsidy situation so that we put a small premium on the tariff for the 22,000 customers on natural gas and reduced the cost of those still using L.P.G. to save the tariff.

The Connétable of St. John:

What is your L.P.G. ratio in Jersey?

Chairman, I.E.G.:

No, it is all of the customers involved.

The Connétable of St. John:

But out of your over 10,000 customers, what is your L.P.G., is that 50:50?

Chairman, I.E.G.:

I could not tell you offhand. No, no.

The Connétable of St. John:

60:40 or whatever?

Chairman, I.E.G.:

Oh, you mean in terms of the bottled solutions rather than the network?

The Connétable of St. John:

Yes, the ratio on grid to off grid.

Chairman, I.E.G.:

Well, it is very, very high on the grid, so yes, it will be a figure of 80 per cent to 90 per cent.

Managing Director, Jersey Gas:

Yes. We can come back to you; I think about 80 per cent.

Chairman, I.E.G.:

We can confirm it would be more than 80 per cent.

Deputy J.H. Young:

80 per cent on the grid?

Chairman, I.E.G.:

On the network, yes, rather than being supplied with bottles, yes.

Deputy J.H. Young:

20 per cent on the bottles.

The Connétable of St. John:

Yes, but you were talking about local networks, so therefore if we use anaerobic digesters and the local networks, that is a way forward.

Chairman, I.E.G.:

If you have got natural gas, then you can use anaerobic digesters to then create natural gas and inject it into the grid. We could not mix that L.P.G. as we have currently. It is not compatible, so you would have to have natural gas here to be able to take advantage of that in terms of the grid application for gas.

The Connétable of St. John:

I am talking about the localised networks.

Managing Director, Jersey Gas:

Yes, you could distribute the gas that you produce in that way. That is perfectly viable.

The Connétable of St. John:

In small units of 20 or 30 homes.

Managing Director, Jersey Gas:

Yes, exactly, so those are dependent upon the gas that is produced and you can do that. You can create synthetic natural gas in that way, but that will be a local network and separate, not interchangeable with our network.

[15:15]

The Deputy of St. Martin:

Could I ask, how do you cope with converting a network from L.P.G. to natural gas, like how would you start in Jersey? I presume, to be quite crude here, you just on one day stop pumping the L.P.G. down the pipe and you start the next day with natural gas, but then what happens to all the houses at the end of the pipes that cannot use it? How do you manage the transformation?

Managing Director, Jersey Gas:

The gas network, the distribution network, is almost picture, if you will, a tree and the nearer the point of injection of the gas, the larger the pipes, then they get smaller. The challenge with conversion is that you then have to reverse that process, that you then introduce the new gas in the opposite direction and you work back to your source. That is how we do it. So we sectorise it, we break it down into pockets and we did it last time about 100 properties. We introduced natural gas, we convert those people. We did that over 2 days.

The Deputy of St. Martin:

Where does that natural gas come from? Do you park a tanker at the end of a road somewhere?

Managing Director, Jersey Gas:

Your new supply has to come in from the other direction, so you have to engineer it and make new connections.

The Deputy of St. Martin:

So you have to put another pipe in the ground somewhere to provide the natural gas to that source?

Managing Director, Jersey Gas:

It depends ... it is quite complex. If you have got a room, you can divide the room and put the gas one way, but essentially, it is a very simple and straightforward engineering solution that requires laying some new pipes, not a duplication of your network. We would just displace the old gas with the new gas in sectors and we would need to make a certain number of discrete reinforcements, if you will, to the existing network to bring the natural gas to a specific point.

Deputy J.H. Young:

Sounds very complicated.

Panel Adviser:

They managed it in England 40 years ago, let me reassure you on that one.

Managing Director, Jersey Gas:

They did it last year in the Isle of Man.

Deputy J.H. Young:

Can I just check out this, you are proposing or you are making a clear bid, or at least a proposal, that there should be this study into this pipeline and you have set out some very detailed

requirements for what that study might answer. What is your feel for the cost of doing that piece of work?

Chairman, I.E.G.:

I think probably - and I think we made it clear in there - that we would see it being a study across the Channel Islands and we would like both Governments to be involved in that sort of study. I think you would have to go through a tender process.

Deputy J.H. Young:

But roughly?

Chairman, I.E.G.:

About £100,000 would be my guess.

Deputy J.H. Young:

Really? You would get it done for that amount to the standard you require?

Chairman, I.E.G.:

It is a guess. I think that would get you to a point of knowing what the indicative costs are. You would not be at a fixed price tender level, but within probably plus or minus 20 per cent or 30 per cent.

Deputy J.H. Young:

What sort of people would you go to for that? Engineers, economists?

Chairman, I.E.G.:

One option would be to go to a subsidiary of Gaz de France, because they have got both the pipeline knowledge and there is another subsidiary there that operate L.N.G. businesses, so that is certainly one option. There are various other engineering companies that could do it as well.

Deputy J.H. Young:

Are you proposing that Jersey should pay for that?

Chairman, I.E.G.:

I think we would like to share the costs between us and ideally the 2 Governments, because we strongly believe that it would have to be a solution for both Channel Islands, because we have not talked about our current supply chain, but we share the supply chain. We have the same ship that brings gas and it either comes here first or goes to Guernsey first. If you cut one Island off

because you switched it to natural gas, it would make the economies of our business even more difficult.

Deputy J.H. Young:

Have you made a similar proposal to Guernsey?

Chairman, I.E.G.:

Yes, we have.

Deputy J.H. Young:

Are they doing a Scrutiny review?

Chairman, I.E.G.:

No, but we have had meetings with Steve Morris, who is the Energy Policy Adviser there.

Deputy J.H. Young:

Where does he sit, in which department?

Chairman, I.E.G.:

Oh, gosh. I think it is commerce and employment.

Deputy J.H. Young:

So you have got a dialogue with civil servants?

Chairman, I.E.G.:

Yes.

Deputy J.H. Young:

Not with politicians?

Chairman, I.E.G.:

Well, we have met. I met with the Treasury and Resources team as well, yes.

The Deputy of St. Martin:

Do you have ability to carry 2 different types of gas on your ships at the same time?

Chairman, I.E.G.:

They are not our ships, but no.

The Deputy of St. Martin:

So they either come with one or the other?

Chairman, I.E.G.:

It would be a different vessel.

The Deputy of St. Martin:

It would have to be a different vessel?

Chairman, I.E.G.:

Yes.

The Deputy of St. Martin:

I ask only because obviously the J.E.C. (Jersey Electric Company) are running their power station down at La Collette at the moment quite a lot and they are using lovely oil. Have you had any discussions with them about the possibility of converting the engines down there to gas, to natural gas?

Chairman, I.E.G.:

We have certainly talked to them in the past about it. There does not seem to be a great appetite for it, it would be fair to say.

The Deputy of St. Martin:

Would the price of natural gas be something which might attract them in the future?

Chairman, I.E.G.:

I think it should at least make them reconsider it, yes.

Managing Director, Jersey Gas:

I mean, we are predicting strongly that the gap, the price point will widen significantly between liquid hydrocarbons and gas or natural gas product.

Deputy J.H. Young:

So it would be a reduction in oils, fuel oils?

Managing Director, Jersey Gas:

Yes.

Deputy J.H. Young:

Heating oils, that is what your principle submission is?

Managing Director, Jersey Gas:

Yes, and in the case of the prime movers of the electricity generation.

Deputy J.H. Young:

I think one question I need to clear out of my head - it may seem a daft question - you spoke about biogas. Are there places elsewhere that make connections and get biogas from sewage plants?

Managing Director, Jersey Gas:

Yes.

Chairman, I.E.G.:

There are in the U.K., yes.

Managing Director, Jersey Gas:

Yes, and they do that ...

Deputy J.H. Young:

Successfully?

Managing Director, Jersey Gas:

Yes.

Chairman, I.E.G.:

Yes. I mean, it is fairly new as an application, and I am not sure if they are connecting to the grid yet, but certainly power generation solutions through sewage plants are fairly common in Europe.

Managing Director, Jersey Gas:

In the presentation that was given to the Director of Environmental Policy and Members of the States, we have got a copy here that we would like to leave you with, it does discuss that and there are examples of that technology, but to be fed into the grid, it has to be fed into a natural gas grid to get the kind of C.V. (calorific values) and that is the differentiator.

Chairman, I.E.G.:

You do need some treatment as well and ...

Managing Director, Jersey Gas:

Some enrichment as well.

Deputy J.H. Young:

Enrichment with other gas?

Managing Director, Jersey Gas:

With other gas, yes, to get it to balance, because it is quite complex.

Deputy J.H. Young:

Okay, thank you. I am going to pass on to Roger now, who has got some questions for you.

Panel Adviser:

Thanks. Yes, shale gas, there is another group which says: "It does not matter if there is lots of it and it is dirt cheap, we cannot afford to let it out of the ground because of carbon emissions. We have just passed 400 parts per million. We really cannot afford another big hydrocarbon source." What do you say to that?

Managing Director, Jersey Gas:

It is a big world. Currently, China has been making one coal-fired power station and bringing it on probably per week. There is the potential for China, they have huge shale gas reserves. Their side of the planet is consuming a lot of heavy carbon products and that in itself is starting to potentially change and reduce the global amount of CO2 that is going into the atmosphere. Now, it depends whether you are going to have a local conversation or a geo-conversation about this. From the conversation that we have been having with people, that is the game changer, and we talked a little bit about the U.K. even considering coal-fired power stations. It has the potential to change that, and so you are quite right that compared to zero carbon, natural gas is intense compared to coal. It is considerably less intense compared to oil, it is less intense and it is trying to balance those things. At the moment, it is hard unless you are purely nuclear, and it is hard to be purely nuclear and it is hard to have totally clean energy at the moment. You have got wind; it is not always there; you cannot store it. So we think that transitionally it is probably the least worst option at the moment.

Panel Adviser:

I am not clear how it would be reducing carbon intensity in Jersey, seeing as Jersey's electricity - we have had this discussion many times before - is largely nuclear and largely low carbon.

Managing Director, Jersey Gas:

Yes, but then what we are talking about is the future and the play globally. It is very interesting, and I am not an expert in it, but the world is changing very quickly in the discovery of this and so you will be better informed perhaps than I in that matter.

Chairman, I.E.G.:

I think another aspect is just security and diversity and I have long believed - and probably this was part of our conversation a year or 2 ago - was I would certainly think it would be very wise to maintain several types of energy supply on the Island, as you currently have, and patently it has worked well for many, many years, having a mixture of electricity, gas and oil. That is what I see for the foreseeable future.

Panel Adviser:

Okay, thanks. Finally, there is another one: you have mentioned several things which will be very clearly supportive of the energy plan around heat and power, more use of digestion, more use of biogas either as a power generation source or going into a grid, if it was an actual gas grid. Does the draft plan as it stands give you the sort of support that you would like to see for those things, and if not, would you like to make some suggestions for changes?

Chairman, I.E.G.:

I think we feel we have had several opportunities to speak directly to the Director of Environmental Policy and we have had plenty of opportunity to make our submissions, including coming here today, and we are grateful for that open process and we feel we have put in what we wanted to. I suppose the one thing we thought we were learning about sort of right at the end of the process is the shale activities, so outside of the consultation process we wrote something separately with the Director of Environmental Policy, and we would like to think that we will have even greater opportunity with some of these actions that are set out to be engaged more closely. I do not think there is anything beyond the pipeline study that we have already covered that we would say we would want to change or add.

Panel Adviser:

Do you think you have got the right regulatory regime to provide heat and power?

Chairman, I.E.G.:

Regulatory regime? Well, there is not a regulatory regime. Yes, I am not ...

Panel Adviser:

But can you sell power to the grid at a price that makes it sound ...

Chairman, I.E.G.:

Well, no. We would like to see some changes there and we have had discussions previously, but it has not stopped a few projects going ahead. As I mentioned before, we do have combined heat and power on all 3 of the Islands that we have discussed.

Panel Adviser:

But if there is anything specific that you would like to bring to the panel's attention, please do.

Deputy J.H. Young:

Yes, you spoke about there is some changes you would like to see in the regulatory regime.

Chairman, I.E.G.:

Yes. I guess it is as simple as the sell-back arrangements, the feed-in tariffs if we are generating electricity, and we have not raised it with Jersey Electricity recently but it is the sort of thing we would expect to talk to them about directly from time to time, but I think some changes might make more projects economic is what it would come down to.

Deputy J.H. Young:

That requires regulation to change?

Chairman, I.E.G.:

It does not necessarily. It could just be a commercial arrangement between us and Jersey Electricity. I think for me that would not be a good reason for ... it would not need a regulator to do that.

The Deputy of St. Martin:

I have just got one small question, back on the subject of transport. If you had in the U.K. at the moment 2 buses side by side, notwithstanding the cost of conversion and all this type of thing, how much does it cost? What are the fuel costs of those 2 buses, diesel versus natural gas at the moment on a mile for mile basis?

Managing Director, Jersey Gas:

I have not got that, but we can get that number back to you.

The Deputy of St. Martin:

Okay.

Deputy J.H. Young:

Roger, you wanted another question?

Panel Adviser:

Yes. It is about the old chestnut of carbon versus energy, because I am very relieved we are not having some of the discussion we had before, but I still felt there were some points that you and your colleagues were raising which are important and ought to be taken into account. The plan is framed very much in terms of carbon counting. That has implications for the way targets are set and for the way that things look good or bad. One of the things that comes out of that is that any generation on Jersey, however low carbon, adds to Jersey's official carbon numbers, whereas any power - however clean or dirty - imported into Jersey does not. Do you feel that the way that the plan currently frames its targets very largely in terms of carbon is right or does it need also to look in terms of energy consumption as another measure, building bylaws as well, the way that they are framed?

Chairman, I.E.G.:

Yes. I think it is not something that we have discussed internally recently, but it would seem obvious that looking at energy as well as carbon is key, because it just is, so I could not do anything but say yes, I would suggest we do need to include energy as well.

Deputy J.H. Young:

Energy as opposed to carbon, just carbon?

Chairman, I.E.G.:

Just carbon. Yes, I think you will understand why, because there are lots of assumptions that need to be made about how you interpret the carbon associated with any particular ...

Deputy J.H. Young:

So it is the units of energy that count, in your view?

Chairman, I.E.G.:

I think you have got to look at both, I suppose. I mean, to calculate the carbon, you must start with the energy anyway, I would imagine.

Deputy J.H. Young:

You mentioned building bylaws. Did that use the energy measures?

[15:30]

Chairman, I.E.G.:

The building bylaws, we understand they are expected to ... I mean, obviously building bylaws generally get refreshed quite regularly anyway, so it has been an issue in the past and we had quite a lot of discussions at the time of the last change about suggested alterations to the way carbon was presented in the bylaws.

Deputy J.H. Young:

In our bylaws.

Chairman, I.E.G.:

That was done through ...

Deputy J.H. Young:

Has that been resolved?

Chairman, I.E.G.:

Yes, that was resolved at the time, but I am not aware that there is any current drafting at the moment, but I believe there will be some changes, yes.

Deputy J.H. Young:

So if there is drafting, are you involved anywhere in discussions with our building control Minister?

Chairman, I.E.G.:

We are not at the moment, but we would expect to be.

Deputy J.H. Young:

When it happens.

Chairman, I.E.G.:

Whenever there is drafting, we would expect to ... we would take the trouble to comment.

Deputy J.H. Young:

We have certainly got it in this plan, proposals for stronger energy, stronger bylaws.

Chairman, I.E.G.:

Yes.

Deputy J.H. Young:

But I think they talk about zero carbon emissions, do they not, I think? Something like that, but this is only a plan at the moment, and I have not seen any draft bylaws.

Chairman, I.E.G.:

Yes, and again of course because we have got business interests in the U.K. as well, zero carbon is a phrase used in the U.K., but one thing it does not actually mean in terms of building new buildings is zero. It means ...

Deputy J.H. Young:

It means something else, okay. So it is kind of a ... okay, I thought I would check. So anyway, you expect to be involved in discussions on that, based on the energy reference.

Chairman, I.E.G.:

Yes.

Deputy J.H. Young:

Roger, does that clear your points?

Panel Adviser:

Yes, thank you.

The Connétable of St. John:

Just to come back to one thing you said, you would like to share costs on any survey that would be done. Are you looking at picking up 50 per cent of the bill and the 2 others 25 per cent or a third a third a third?

Chairman, I.E.G.:

We think 3 ways.

Managing Director, Jersey Gas:

I am not sure. We are in an awkward situation here.

The Connétable of St. John:

I am not saying that we would not put something towards it, but I do not know if it would be the kind of figures you would be looking for.

Deputy J.H. Young:

We are taking note of these figures. We will take note and ...

Chairman, I.E.G.:

I mean, it is something to talk about. Our main interest is to believe there is some real, genuine interest, because there is no point in us wasting our money or the 2 States wasting their money if people do not believe it is of real interest, and genuinely if it came out with a sensible economic conclusion, that there would be a good chance of it being pursued.

Deputy J.H. Young:

But there may be 2 questions. First of all, is it the right time to do it, because it sounds to me there is worry and there is a lot of uncertainty, picking up what you were saying there about trends in prices and so on. Is it the right time? I sense that it is not quite the right time, it sounds a bit early.

Managing Director, Jersey Gas:

No, I think that ... I mean, bearing in mind this is going to take a little bit of time and there are economists out there that are just starting to grapple with what is the future of gas going to look like, I think it is a ...

Deputy J.H. Young:

How long will it take you to ... it will take a little time to do. How long?

Chairman, I.E.G.:

To build?

Deputy J.H. Young:

No, no, to do the study.

Managing Director, Jersey Gas:

I would have thought 3 to 3 ...

Chairman, I.E.G.:

Three to 4 months.

The Connétable of St. John:

Two years ago, when I last came across you gentlemen - or your companies, anyway - the impression I got was that there was possibly a time that they were going to manage a retreat, but that does not seem to come across today. You seem far more buoyant and with a positive way forward.

Chairman, I.E.G.:

I think some of the comments being made 5 years ago had suggested that to meet the carbon ambitions that there would have to be a retreat from oil and gas towards zero carbon electricity.

Deputy J.H. Young:

Comments from who?

Chairman, I.E.G.:

I think it was discussions around the time of the previous drafts of the energy policies, and obviously both Islands were doing similar things, so we were having discussions in Guernsey as well as Jersey. We sense that that is not quite the tone we see reflected in the current document, so we certainly do not see that as a near-term solution, whereas it seemed last time that there were some people at least that saw a fairly short-term transition towards an electricity-only Island.

Deputy J.H. Young:

The question that time periods are important, you said you saw this as a transition and then you said: "for the foreseeable future." What do you think is foreseeable? Are you talking 20 years, 25?

Chairman, I.E.G.:

I would say at least that.

Managing Director, Jersey Gas:

At least that.

Chairman, I.E.G.:

At least that, and I think again, I can remember conversations - and again, it may have been here, it may have been Guernsey - but people telling me that: "Well, within 5 years, we will have significant tidal-based power generation in the Channel Islands."

The Connétable of St. John:

It has taken over 5 years to get this.

Chairman, I.E.G.:

So I think that there is a ... I am not a complete sceptic.

Deputy J.H. Young:

There is a long way to go.

Chairman, I.E.G.:

I am not a complete sceptic with those renewable technologies, but I do think a lot of them are still a long way from being ...

Deputy J.H. Young:

Okay. So therefore the idea of a pipeline is still viable if we are talking about 30 to 40 years?

Managing Director, Jersey Gas:

Forty years perhaps, yes.

Chairman, I.E.G.:

I would say so.

Deputy J.H. Young:

Because it would be worth the investment.

Chairman, I.E.G.:

If you always want to want to generate ... always have the option to generate power on the Island, which I know is a question, because you could choose not to, but if you did, then my thesis would be you would still be better off doing that with natural gas than any of the other current alternatives.

Deputy J.H. Young:

Roger, you want to get back in.

Panel Adviser:

Yes. I have not seen anything in the papers this time around that alters the logic of what I saw 2 years ago, that these very ambitious decarbonisation targets do require ramping down fossil fuels rather than increasing them and investing in new infrastructure, so if you think there is something to alter that argument, I would be interested to hear it.

Chairman, I.E.G.:

No, no, I suppose it is not ... what I was trying to reflect was there were comments, and some of it might just have been snippets of conversations and not written in the documents, but certainly comments of eliminating the consumption of gas and oil completely in relatively short terms, and that is why I refer to the 5 years. You know, if somebody answers when we said: "Well, how is that going to be achieved?" and we did speak in both Islands and asked the question: "Well, if that is a

definite intention, have you actually examined what the process would be?" because if you did wish to switch people away from gas or oil, you cannot do it in a simple linear way, such that we start with 9,000 customers today and turn the last one off at some point in the future, because the business will not be economic to go down to the last customer. You would have to do a lot of thinking and planning to achieve that in a sensible way, and that was some of the discussion that we had last time, because the suggestion was that there was a view that it could be done maybe within a relatively short period of time, and short periods of time in terms of energy is still 10 or 15 years perhaps, rather than 30, 40 years.

Deputy J.H. Young:

Steve, do you have any questions?

The Deputy of St. Martin:

No, I am fine, thank you.

Deputy J.H. Young:

Thank you, gentlemen. I am going to close the meeting at that stage. I would like to thank you both for coming over especially to see us and giving us full and open information. Thank you very much indeed.

Chairman, I.E.G.:

Thank you for the invitation.

Deputy J.H. Young:

We are obviously going through a series of meetings and then later on, we will be having meetings with our Ministers and seeing where this takes us, but thank you for being with us today.

[15:38]