



**Environment Scrutiny Panel**  
**Energy Policy Review hearing with Mr M. Liston**

**WEDNESDAY, 12th JUNE 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

Mr. R. Levett (Advisor)

**Witness:**

Mr. M. Liston

[13:29]

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

Good afternoon, everyone, and welcome to this afternoon session of the Environment Scrutiny Panel. We are continuing our programme of meetings on the Minister for Planning and Environment's draft Energy Strategy.

[13:30]

I will just for the record introduce myself: John Young, Chairman of the Scrutiny Panel.

**Deputy J.H. Young:**

Excellent. Thank you, Mike, for coming along. Obviously we are in public session. Alongside you, you will see a little note of the rules that apply. If at any time there is some information that we seek from you that you think would not be appropriate to put in public session, I will rely on you to highlight that, please.

**Mr. M. Liston:**

Yes.

**Deputy J.H. Young:**

Obviously, Mike, we invited you today because you must have forgotten more about matters energy than we have ever learnt. You obviously have had a long career in that area. Although you are no longer in that senior position running the electricity company, the principal energy provider, you obviously are tremendously aware of that. Of course, you also had a role on the Renewable Energy Commission, which we want to try and talk to you about if we can.

**Mr. M. Liston:**

Yes.

**Deputy J.H. Young:**

Could I ask if perhaps for the record you could outline at the moment, you have a wide range of interests: do you have any particular interests that we should know about?

**Mr. M. Liston:**

I think in terms of, if you like, potential for contribution to your work, as you know, I have had a fairly long career in mainstream electricity supply, but towards the end of that career I decided to withdraw early in order to pursue my growing interest and involvement in sustainable energy. So although for the record I am here as an independent, I should declare a balanced potential conflict of interest, insofar as I am still on the board at Jersey Electricity - not my idea, but I am very happy to be doing that - so, if you like, conventional industry biases are a risk. On the other shoulder, just to balance that risk, I chair a number of renewable companies. Some of them are listed in London and other stock exchanges. I chair one of the top 3 in terms of size independent wind operators and developers, principally in the U.K. (United Kingdom) but we have developed wind businesses in North America and Eastern Europe. I chair a venture capital fund investing in solar energy in and around southern Europe principally and a private equity solar business operating in the U.K. I have sat on various boards of what you would call alternative renewable energy businesses.

**Deputy J.H. Young:**

Thank you for that, Michael. Thank you for that group of declarations, it is appreciated. Obviously one wonders how you have time to sit on the bench of the court as well. I think we can probably go straight to the subject of renewables. We have heard from Sir Nigel Broomfield, who is a member of this body, which was set up by the previous Minister. I had better get the titles right. It was originally called the Tidal Power Commission, I think, set up by the previous Minister, inherited by the new one, and it is now titled the Renewable Energy Commission, as I understand it ...

**Mr. M. Liston:**

Yes.

**Deputy J.H. Young:**

... to recognise the wider role. What we heard from Sir Nigel - I am sure he will not mind us saying this - we heard, if you like, a vision but what we would very much like to hear is a little bit more substance to what is known about the prospects for renewable energy, what opportunities exist, and how far, if you like, what progress has been made by that body in helping the Island towards identifying and taking those opportunities. Perhaps if I could ask you to start, are you happy to address that question?

**Mr. M. Liston:**

Yes, of course. I have not been too involved in that. It has not had a great deal of activity probably in the past year.

**Deputy J.H. Young:**

Has it met?

**Mr. M. Liston:**

Not with me present. I think it might have done. There were, I suppose, streams of work set off, constrained by funding, as you might expect, but I think frankly in my judgment probably as much as we could be expected or needed to be done at the time. So if there have been any very recent developments ... I suppose I maybe became slightly disillusioned and I felt on occasions that the body was being treated a little bit as a grandstanding opportunity for some political positions. I was uncomfortable, frankly, with the way that there was some hijacking, and whether it was with consent or not, of the whole notion as to where renewable energy could properly fit into the economy of Jersey. Because I too often heard in political circles, and not least in the British Irish Council, reports of meetings there which suggested that Jersey was on the cusp of a gold rush and that it was going to become a flagship centre for renewable energy applications. I did feel and expressed my view on many occasions - and I think probably the message did eventually start to

trickle through - that there would be no gold rush. I am speaking now as somebody who spends an awful lot of time evaluating different countries' attractiveness for investment of capital, whether from the businesses that I run or chair or generally more widely in the energy sector fullstop. Because what I am going to speak briefly about does not just involve renewable energy, there is an issue of attractiveness of energy markets around the world in a constrained capital environment and a burgeoning demand for investment in energy systems associated with population growth. You no doubt will come across proper authorities like the World Energy Council, I.E.A. (International Energy Agency), World Bank, others, all of whom agree that with the population growth trajectory that the world is on, then the commercial energy supplies will have to double by 2050. That is quite a tall order. That is not just around meeting population growth but to address the poverty issues given there are around 2 billion of the 6 billion people on the planet not having access at all to commercially available energy. So there is an issue around attracting capital in order to be able to exploit energy reserves, whether they are oil, coal, gas, nuclear, wind, solar, whatever. So I found it a bit rich on occasions that Jersey was apparently, although I was seeking to represent Jersey, misleading others in firstly the size of the resource here, and secondly the availability of capital to harvest those resources. In general, the answer to your question how has it gone, I think at last we have probably got to the position where the euphoria and the expectation that Jersey could have another strand to its economy has I think been dispelled. I am sure there are some individuals who probably do not believe that. We have fairly mediocre renewable energy resources. Where they are exploitable, I think nobody would expect we would be able to exploit wind sources onshore, but offshore there are moderately attractive small-scale wind resources in the waters around Jersey, in particular to the south, but would they be of the slightest interest to most wind developers? No, simply because the scale is not big enough, but a bigger issue - which I will gladly come back to if you remind me - is simply the policy environment in Jersey that developers look for, whether it is to develop wind, solar, marine energy, is not in place. I think I would kneecap any of our executives in any of my renewable businesses if they spent more than 10 minutes contemplating coming here, simply because now with the demand for inward investment around the world to extract energy of whatever kind, but particularly renewable, the developers are ruthless. They will look at each jurisdiction and the first thing and probably the only thing they will look at if it is not met is where is the legal framework that is going to be driving energy sustainable policy, which will mean that over the 25-year life to which we are exposed to the economic risk of our capital investment not being repaid at a rate of return that is attractive enough to investors, that will be going to the capital markets or shareholders ... unless they (the jurisdictions) have a very clear framework that says: "Here is the primary legislation on renewable energy and emissions reduction." For example, in the U.K. and all the other European countries, on the back of the European directives that say 20 per cent of your energy will be renewable by year 2020 - that is for the European Union as a whole - translates in the U.K. to 15 per cent of all energy consumed in the U.K. will be renewable by 2020. That drives primary legislation and developers can be easily confident that measures in place to incentivise investment, the various

schemes that you will have come across, renewable obligation certificate scheme, feed-in tariffs, all the other sort of subsidies that are needed to get scale for the adoption of renewable energies, that those schemes will outlive a parliament. Again, when you go as the developer to a consortium of banks saying: "We need half a billion pounds for the next 3 years to develop in that country, that country and that country" the due diligence that these banks now apply to any kind of renewable energy investment request is just extraordinary and it starts with the policies.

**Deputy J.H. Young:**

We would not even get in the starting gate then?

**Mr. M. Liston:**

No, you would not.

**Deputy J.H. Young:**

Which comes first, is it the fact that you are saying that really what we have is the opportunities are so modest that is the essential block, or is it the fact that our framework is non-existent?

**Mr. M. Liston:**

It is the latter. It is the framework.

**Deputy J.H. Young:**

If the framework were there, would it still then be feasible? Are there exploitable resources which should form part of an Island-based strategy?

**Mr. M. Liston:**

Yes, exactly that. Like any marketplace, we have large organisations who are resilient, they have diversified, but they are not interested in bottom feeding on small stuff. The energy industry is no different. You have niche players, so you have businesses that are small enough. They are, of course, therefore at risk more than more diversified businesses so they tend to be even more dependent on the security of a policy framework. When they go to raise funds, the funders, whether they are raising equity or debt, it does not matter. The point is that if they default, if they have made a bad decision and the 25-year return on their upfront investment at £1 million ... well, we will come back to £1 million a MW versus £4 million a MW for tidal stream ...

**Deputy J.H. Young:**

Yes, we will come back to that.

[13:45]

**Mr. M. Liston:**

We can quickly whip through that. But there are organisations around who I think you can be sure of in due course being interested in the modest resource that Jersey has.

**Deputy J.H. Young:**

Right, so there will be niche players in the market?

**Mr. M. Liston:**

There will be niche players.

**Deputy J.H. Young:**

But if we got the framework right, despite what you said about the fact that it is not the gold rush, there is potential there: it is modest; it will not lead to a new industry but there are opportunities there that if we got it right that we should take?

**Mr. M. Liston:**

Yes.

**Deputy J.H. Young:**

Could I just clear up this question, if you are able to tell us? You said about the misrepresentation, gold rush and so on. Did that go on at the British Irish Council?

**Mr. M. Liston:**

I was not there, so I do not know, and I have not seen formal minutes of the British Irish Council, but I have seen media reports of some of the interviews that were done in that environment. I think we are all realistic enough to know that when a journalist sticks a microphone in front of a politician's face and more or less says: "What are you doing here?" then there is bound to be a rosier picture maybe than is the case.

**Deputy J.H. Young:**

But in this case it has been so extreme to be misleading?

**Mr. M. Liston:**

Yes. I felt quite uncomfortable at times that the information could only have come partly from somebody on the Renewable Energy Commission or whatever or somebody just interpreting it. I think we have been moderate in our language, but I think probably it has been misrepresented for whatever reason.

**Deputy J.H. Young:**

Thank you for that.

**The Connétable of St. John:**

Can I come in on that? Because you are talking about the legal framework and given you have been around the Island long enough, Mike, to know the speed that the Government of Jersey works - if we want something today we are still looking for that legislation 10 years down the road - have we missed the boat?

**Mr. M. Liston:**

Do you know, I think probably for once in my 27 years here I would say we might not have missed the boat, because I do believe that for several reasons we do not want to be an early adopter. We neither have the imperative driving us to early adoption of some of the renewable energy technologies that are particularly suitable to the resource that we have; neither do I think we have the means to fund it. One of the discomforts I have had is that I have heard one or 2 politicians, one of which is the Minister currently responsible for environmental and planning matters, really strongly asserting that developers are a grubby lot and they should not be treated generously and that they will come and they will harvest the energy and there will be plenty of energy there for Jersey to use at preferential prices. The hard reality is, and I think probably where I had the most profound disagreement with him, if not one or 2 others around the edges of the Commission, was that the reality is, very much like maybe North Sea oil, the resource is in a very difficult place to get, huge risks and huge costs to extract it, and the only way that you will get people to come and extract it is to allow them to sell it when they have harvested it. The notion that you can come to some under the table deal with a developer to say: "We will let you have the privilege of coming to Jersey and extracting this energy from our shores, but we want half of our electricity from you at half price" or something like that, it is not like that at all.

**Deputy J.H. Young:**

So they are unrealistic expectations?

**Mr. M. Liston:**

Entirely.

**Deputy J.H. Young:**

So part of what you are saying to us is that that is an important aspect that should be considered. I think that reflects the panel's view that we want to test out this strategy for realism.

**Mr. M. Liston:**

Yes.

**Deputy J.H. Young:**

So that is what we are seeking to do.

**Mr. M. Liston:**

Yes, I think so. As we speak now, it does not matter which renewable energy system you look at, whether it is wind, which has now a long-established history, costs have reduced ... wind has become a global player, but nevertheless offshore wind production, the cost of electricity produced by offshore wind generators, would be about a little over 3 times the price of the energy that we in Jersey import from Europe. The European wholesale price is about a third of the cost of electricity produced by offshore wind. That is a mature technology. It will drop a little bit further but that is the reason, for example, that wind, whether it is offshore or onshore, like most other renewable technologies, needs to be subsidised. That subsidy will be able to be reduced as scale increases, as indeed the price of the conventional energy goes up, as it surely will do. So the difference between the renewable energy and the fossil energies and nuclear energy tends to disappear.

**Deputy J.H. Young:**

But would it not be also so that there is a likelihood that the fossil energy costs will rise?

**Mr. M. Liston:**

I think that is a certainty. Whether you are a believer in peak oil or not, the reality is that demand for energy is going to double by 2050. It is a finite resource except for renewables and renewables are expensive to extract.

**Deputy J.H. Young:**

So would that mean then that looking at wind, particularly in the example you gave, that that equation will shift?

**Mr. M. Liston:**

Yes.

**Deputy J.H. Young:**

The differential between the present known cost of using that technology to extract power compared with what maybe will lessen, may disappear, may go the other way?

**Mr. M. Liston:**

Yes, indeed. In fact, all strategic discussions on world energy and technologies to extract renewable energy talk about grid parity - and that is a stage in the rollout of a renewable energy technology where the costs drop to be equivalent to the conventional energy - wind is nearly there. Solar is getting there extremely quickly but that is for technological reasons around semiconductor materials as well as scale. As I say, onshore wind is such a well-developed technology now that the cost curve is doing that. It is probably going to reach grid parity more by fossil fuel conventional energy prices coming up than further technological development scale.



**Deputy J.H. Young:**

So looking at the opportunities, Mike, for renewables in Jersey, or at least let us call it the Channel Islands, because I think clearly we have to look beyond our shores, we have heard from others who have said that the wind resource is a lot more substantial in terms of extractable energy than the tidal power.

**Mr. M. Liston:**

Yes, it is.

**Deputy J.H. Young:**

Would you agree with that?

**Mr. M. Liston:**

It is a multiple probably of at least 10 and possibly 30 times. One thing I should say is that I think, to be fair, the energy ... I will not call it policy document but the energy report, because I do not see a lot of policy in it. I think, to be fair, it does properly reflect the now common wisdom that this is not a battle in energy between nuclear, coal, oil, gas, wind, solar, marine. In a healthy energy policy we would be looking for the diversity of as many of those as are affordable and practically applicable. Now, the wind resource is more abundant in and around Jersey than the tidal stream. Alderney is a special case, as you know, very concentrated tidal stream resource, but further down here, Jersey and Guernsey, it is more moderate. It is of moderate interest from a developer's point of view if you were looking at either the cheapest way for a jurisdiction to meet its carbon emissions obligations or for energy security or for affordability in a world where fossil fuels may well go exponential depending on ...

**Deputy J.H. Young:**

So it is not the Crown jewels, as it were, but the wind power is ... as a member of what was the Tidal Power and then Renewable Energy Commission, was the potential for wind resources actively investigated?

**Mr. M. Liston:**

That was, I like to think, one of the contributions that I did make, was to just plead for us to be open to a resource beyond what was the name that was on the badge, because a lot of the issues that are in the way of Jersey eventually, to come back to your point, being able to exploit these resources, a lot of the issues that are in the way of us exploiting the tidal stream resource are the same issues that are in the way of us developing wind. That is a policy framework that mandates action rather than ... and I have to say, if I am critical about this report - and I, frankly, have been - the Energy Plan for Jersey, apart from it taking 7 years or so from its first draft to get to where it is today, I think one of my biggest criticisms is that you can read front to back and although it is a

beautifully crafted document, very informative and lots of motherhood and apple pie and something you would be proud of to give to any bureaucrat in Brussels to show that Jersey is taking it seriously, if you are looking for people to fund the extraction of renewable energy it is a complete waste of time.

**Deputy J.H. Young:**

It is a bureaucratic document?

**Mr. M. Liston:**

It is, and there is nothing in there that you could show to a consortium of banks and say: "That is why we want to go and invest half a billion in Jersey."

**Deputy J.H. Young:**

It has been described to us in a word as - I wonder if you would agree - aspirational.

**Mr. M. Liston:**

Oh, absolutely, yes.

**Deputy J.H. Young:**

I would also perhaps add "top down".

**Mr. M. Liston:**

Style over substance.

**Deputy J.H. Young:**

Top down, aspirational.

**Mr. M. Liston:**

It is indeed, yes.

**Deputy J.H. Young:**

But you have said with an absence of policy?

**Mr. M. Liston:**

Yes.

**Deputy J.H. Young:**

Policy in the terms you are describing is policy with sufficient clarity that a commercial investor could rely on it?

**Mr. M. Liston:**

Yes, absolutely that, and one that has no wiggle room for successive administrations. So it is in law; it has to be in law.

**Deputy J.H. Young:**

Could I ask you, Mike, getting to the point where we have such policies of clarity, could you put your finger on a way forward for the Island to achieve that? What we have here is a proposal produced by a single Minister. It talks about all sorts of frameworks and so on. Have you any thoughts on how we might focus that, because in talking to people, we get a very strong commercial lead. We get a very strong view reflecting the view that this is going to be market driven; commerciality really is pretty well the dominant factor here. So unless Government wants to invest vast sums of money itself and put itself at risk, how do we get that clarity? Any thoughts on that?

**Mr. M. Liston:**

I have to say it is the same as getting a commitment to change in any big organisation. You need an external imperative that everyone can recognise as being worth making sacrifices. Usually it would be affordability because someone is going to have to pay for this, and I will come back to, if you have the time, one of the misunderstandings about who would end up paying for this. But I think in the absence of an external imperative, you will never overcome the inevitable, the selfish approach that everybody has, and that is: "Why would we pay more for our energy just to, for example, contribute to the worldwide effort to reduce the rate of global warming when the big powers themselves appear to be reneging on their commitments..."

[14:00]

It is becoming very much just a political football, and when times get tough sort of it all grinds to a halt. So the drivers, is it going to be climate change? Probably not, because I think - wrongly, in my view - there is just too much debate around: "Is it a real or imaginary phenomenon?" The only thing, frankly, and I hate to say this, that would galvanise support for a political push in Jersey to renewable energy which would increase the price of energy would be an energy security crisis. It would be that there was some crisis of either the price of imported energy in the Western world, for example, but now given the way that the markets are so integrated, it would be a worldwide phenomenon. So what would drive that? Maybe an escalation of political unrest in the oil-producing, gas-producing Middle Eastern states; it could be an event so awful on the nuclear front that it takes out the 20 per cent or so of world energy that is nuclear, out of the equation... not that

it is all destroyed, but makes it politically unacceptable, to the point where, for example, Germany got to after the Japanese disaster: Germany said “We are going to phase out all nuclear power.” You have then got a huge cost issue as well as a security issue. So whatever the cause of it, I believe that the only way that any political assembly would get public support for the measures that are needed to attract the investment to diversify its energy supply system, to exploit renewables within its own boundaries, would be that kind of crisis.

**Deputy J.H. Young:**

So those shocks there, energy economic shocks, if you like?

**Mr. M. Liston:**

Yes, exactly.

**Deputy J.H. Young:**

Is that an argument for doing nothing then or is it ... I mean, listening to you speak there, Mike, you have identified a whole number of risks that everybody knows exists that are not in here, but could happen in the timescale we are talking about. So it is a strategy to say: “Wait for those risks to happen and then do something” or do you say: “There is a risk, there is a possibility. We are exposed to those. What should the Island be preparing for? What can you do? Can we put in place some frameworks? Can we make some sense of all this?”

**Mr. M. Liston:**

Yes, I think exactly that. It has already been acknowledged that things do not happen very quickly in Jersey. The project lead time issues on this, if the frameworks were in place, I believe that in maybe 5 years’ you would have no difficulty getting from the “invitation to tender” stage to the stage of commissioning the first renewable energy devices, whether it is wind or whether it is tidal stream. But the more important lead time issue in Jersey getting the legal and Planning framework in place. I think there is a good timing synergy here, that by the time the energy technology is available to exploit the marine energy - as opposed to wind, so tidal stream is specifically the one here, in the absence of wave or tidal energy, but it is specifically tidal stream which looks the most appropriate for Jersey - by the time that technology has come down to the level of affordability where the impact of using it in Jersey would be acceptable ... I think we are probably 10-15 years away from that, and we should not waste those years. We should, in those years, get in place a legal framework that is the hanger from which all other policies can hang, which you could put in front of developers and their bankers or their investors and say: “Jersey is driving towards a goal that, by law, it will reduce its emissions by 80 per cent by the year 2050, and as part of that, there is a need for intermediate targets. To avoid the hockey stick syndrome – the “Oh, we are going to do all the action in the last 5 years, not in the preceding 20.” You would need at least an interim legally binding target to get to the ultimate one...

**The Connétable of St. John:**

Your target sheets.

**Mr. M. Liston:**

... and be able to prove you're on a trajectory to achieve it, because you are legally obliged to. What the penalty for failure would be is a difficult one, because who is working ...

**Deputy J.H. Young:**

Does that framework exist in Europe?

**Mr. M. Liston:**

Yes, it does. Yes. It would be interesting to see, because not too many European countries are at the moment on the right trajectory to achieve it. The U.K. might do.

**Deputy J.H. Young:**

Does it exist in France?

**Mr. M. Liston:**

Yes. The target, and it is a very imminent target deadline, the only mandating legislation that has come about in all countries in the European Union falls out of a directive that I spoke about right at the outset, that by 2020 the European community will get 20 per cent of all its energy from renewable sources.<sup>1</sup>

**Deputy J.H. Young:**

So it is an E.U. (European Union) directive?

**Mr. M. Liston:**

It is an E.U. directive that has had to be enshrined in national ...

**Deputy J.H. Young:**

Domestic legislation?

**Mr. M. Liston:**

Yes.

**Deputy J.H. Young:**

So it is in France, it is in the U.K.?

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<sup>1</sup> Subsequently clarified further as meaning that the electricity industry would have to produce 30-40% of electricity from non-fossil fuel sources

**Mr. M. Liston:**

Yes.

**Deputy J.H. Young:**

What you are saying is you think that gives them a better chance?

**Mr. M. Liston:**

It should come here. The difficulty will be answering the public question to the politicians: "Why?" We do not get any of the subsidies that the European community members do, so why should we force ourselves into a legal obligation that will put energy prices up quite dramatically? Can I give you just one example of that, otherwise I will ramble on and get lost, but just by way of perspective, the tidal stream resource that is in that document entitled *Jersey: Next Steps* is at about 130 GWhs a year. That represents about 15 per cent of all the electrical energy supplied in Jersey. The U.K. potential for tidal stream is about the same, it has the potential to meet about 15 per cent of the U.K.'s total electrical energy consumption every year. The cost of extracting that energy, is all upfront capital cost, as it is with virtually all renewable sources, so no fuel cost, but very much higher capital cost than conventional power generating plant. So when you look at the lifetime cost of energy produced from these devices, the convention is that you value the capital cost per MW, the size of the engine, as it were, and you look at the cost of operating it over 20 years, 25 years and you can then compare the energy cost per KWh over the life of that, say, wind generator compared with the lifetime costs of electricity produced by a coal-fired power station, an oil-fired, a nuclear station. So the levelised cost of extracting tidal stream is expected to be about 25 pence per KWh. Those are the expectations, you will see them in there, and that is about 5 times the cost of energy that we import from the U.K. So let us imagine now that we were able to extract all of that tidal stream energy in Jersey's waters for electricity supply in Jersey, then the fact that it is 5 times more than the cost of imported energy at the moment and would be representing 15 per cent to 20 per cent of the energy that Jersey would be using, that means a doubling of the cost of electricity, right? That is the final impact of it. So those are the ...

**Deputy J.H. Young:**

Just looking at the subsidy, sorry.

**Mr. M. Liston:**

Yes, so who subsidises that? Either you say to the electricity users in Jersey: "Well, your energy costs are going up by 100 per cent because we want to supply 20 per cent of the electricity in Jersey, 15 to 20 per cent, from tidal stream." Say Jersey Electricity was prepared to be the developer and fund it, it would have to go to the banks and the banks would say: "Well, we will only fund this if you can be certain of 15 to 18 per cent return on capital." That is about the threshold for most renewable energies. This would be higher than wind, because it is less

proven... it has got more unknown risks in it. The alternative is that the States says: "We do not want Jersey Electricity to be anywhere near any of this. We want to use it to throw open the electricity market to competition" whatever, and invites developers from wherever - and it might be EDF or anyone else - to come and develop that resource. They would tell you exactly the same thing, the fact is the reality is it is going to cost us 25 pence a KWh to supply this energy. Now, subsidy. If it were possible, as it is in other European countries and non-European countries, to attract the same kind of subsidies to Jersey for Jersey's development of such a technology - I would not say development of it, the use of that technology - to extract indigenous energy, tidal stream, if it was possible to attract the subsidies which ... for example, for tidal stream, France has not determined yet what its tidal stream subsidy will be, but in the U.K. the subsidy would reduce that cost of 25 pence a KWh by about 9 pence.

**Deputy J.H. Young:**

Is that a revenue subsidy or is that a capital subsidy?

**Mr. M. Liston:**

It is a revenue one. It is a scheme ...

**Deputy J.H. Young:**

That is direct from the E.U., is it?

**Mr. M. Liston:**

Yes, it is, under the Emissions Trading Scheme. It is collected ... effectively it is borne by all energy users, but paid out to producers of renewable energy and it is funded by electricity retailers (suppliers) who in turn include it in electricity bills ...

**Deputy J.H. Young:**

Suppliers.

**Mr. M. Liston:**

... the suppliers of renewable energy get the subsidy and use it to attract lenders of capital to build renewable energy projects. So if you like, you have got a big pot of energy use ...

**Deputy J.H. Young:**

Which we cannot access.

**Mr. M. Liston:**

... which we cannot access.

**Deputy J.H. Young:**

Even if we were to do things jointly with the French, we cannot access it.

**Mr. M. Liston:**

We may be able to, but then you hit the argument ... you see, if I come to you and I am either EDF or say, Renewable Energy Generation Limited, of which I am Chairman, and say: "Yes, I will bid to develop this resource, but in doing so, it is my capital. I have got to earn a return on it. Unless I can get 25 pence a KWh hour I can't raise the funds to build it, from the capital markets or from selling equity to shareholders. If I go and do this in the U.K. or most other places like Spain" (France is a bit of an exception at the moment, that is just a timing issue on the announcement of their specific subsidies for tidal stream energy): "then out of that 25 pence, I will get 10 to 15 pence subsidy and about 5 pence from selling the electricity in the wholesale market." This still leaves me losing about 5 to 10 pence on every kWh I produce, which is one reason tidal stream won't become meaningful until its capital costs reduce once it has grown decent market share. I have to think millions of pounds a MWh ... but I am trying to use KWh, which you can understand.

**Deputy J.H. Young:**

We will not hold you to the figure, Mike. We will not hold you to the calculation.

**Mr. M. Liston:**

No. Well, £250 a megawatt-hour, at £250 million a MWh as a developer, I know that that would be the cost to me.

**Deputy J.H. Young:**

It would make a hole in that figure.

**Mr. M. Liston:**

I would get, from most European countries, around £150 million just for the credits, just for the carbon reduction credits, and then I would be free to sell the physical electricity, the actual stuff that keeps the lights on. I would be able to sell that on the open market.

**Deputy J.H. Young:**

Okay. I wonder if I can bring in Steve now. Steve.

**The Deputy of St. Martin:**

Yes. Obviously the reason I have not asked many questions, I am just taking it all in, Mike. There is so much information.



**Mr. M. Liston:**

I am sorry. It is a wide-ranging issue. It is difficult.

**The Deputy of St. Martin:**

No, it is really good, really great, but the difficulty we have here outside the subsidy possibilities is that you mentioned time to grid parity.

[14:15]

Obviously we would be, from a Jersey point of view - with no subsidies - saying: "Well, how close? How much time are we going to have to spend before we can get to a situation where these large-scale renewables get somewhere near to parity with what we are purchasing at the moment?" Your description of tidal, obviously that is a long way away, but you intimated earlier right at the beginning that we are getting much closer to grid parity with wind power, but I presume that is onshore wind power as opposed to offshore.

**Mr. M. Liston:**

It is, but offshore in less hostile environments like Jersey's waters would be straightforward. They are not deep waters. That is what essentially drives the higher cost of offshore wind. Offshore wind is about 50 per cent more expensive than onshore wind to produce, simply because getting the stuff out there, getting the foundations in the sea, getting undergrid connections and getting the right weather conditions where you can go out and maintain it or fix it when it is broken, all of them increase the cost.

**The Deputy of St. Martin:**

But my question would be how long do you think we are away from getting anywhere near grid parity with offshore wind in the Jersey situation?

**Mr. M. Liston:**

I think the industry view is it is probably 15 years for offshore wind.

**The Deputy of St. Martin:**

Right, so there it is still a little way off yet then.

**Mr. M. Liston:**

Yes, yes.

**The Deputy of St. Martin:**

So certainly further than the time distance that you have described when it comes to setting up the legal framework and getting the investment and installing the infrastructure. You spoke about the possibility of 10 years there if we worked really, really hard.

**Mr. M. Liston:**

Yes, and I think it would take 10 years.

**The Deputy of St. Martin:**

But the parity with the offshore wind would be another 10 years further down the line as well, probably.

**Mr. M. Liston:**

Yes, I think it would, but by that time ... I think going back to the earlier question and around the imperative issue, the conventional wisdom that has emerged probably in the last 15, 20 years in the energy industry is that the way to exploit natural resources, renewable energies, is to concentrate investment in the areas where that energy is most abundant. So if it is solar, it is obviously the sun, and if it is wind, it tends to be the northern and western parts of the globe, if you know what I mean, if you are thinking about where the developed markets exist. Then you connect them, so you build it where the returns are highest, so it is the lowest-hanging fruit, it is the most attractive, lower risk, bigger returns. You concentrate all your power generation in that area and then you get to the centres of demand by transmission systems. It used to be the case in the energy industry, particularly in power, where you would build your energy production facilities near to centres of demand because of all the sorts of old-fashioned ways of ... the cost of getting fuels to centres of demand was too high. These days, interconnected grids around the planet ... everyone has had their own national electricity grid systems and they were never connected together. Now, led by Europe, I have to say, those grid systems are connected solidly enough and the markets operate transparently enough across them so that if there is a wind resource that is in Siberia, you can buy it in Spain. In practice you would not, because it is still going to be more expensive by the time you have paid everybody a little margin to transport it along the way. So all I would say is at the moment, the diversity that you would look to in an ideal energy policy, to provide you with security of supply, primarily the biggest one, economics of supply and environmental performance, those 3 things, security, cost and environmental performance, you would say Jersey is not a bad position at all, simply because ... and I say this with no allegiance to Jersey Electricity. I am being totally objective with you, because as I said, I have a chip on each shoulder with my renewable interests. It is by default, by accident almost, by necessity Jersey happens to enjoy a very broad access to the full range of energy production technologies, nuclear principally at the moment, because it is cheapest, but whatever, if it was natural gas - and you might want to talk about the gas interconnector at some stage in this

discussion - so effectively, thankfully, because of legislation in Europe, the fact that we have in Jersey paid for solid cable connections to the Continent, and more solid in the next 18 months than has been in the last 12, we can buy our energy from wherever we want.

**The Connétable of St. John:**

Another one, Mike. Were you there at the J.E.C. (Jersey Electricity Company) when they put the first interconnector in?

**Mr. M. Liston:**

I came probably because it went in and it was not working.

**The Connétable of St. John:**

How long did the States take to get their act together on that one?

**Mr. M. Liston:**

That was before my time. I came in 1986, which is a year after it was supplied and the lights were going out all the time. I do not know. I imagine that it cannot have been far off a decade would be my guess. But at the moment, I think we do not have any great urgency, and I think this is a political challenge: how do you get people to sign up to something that could have various implications in the absence of an evident need? But long-term planning, yes, and certainly we have enough resilience for the foreseeable crises that you could get in Europe. We can buy, as I said, through the infrastructure that Jersey owns, Jersey Electricity owns, from any supplier in Europe that we like. If there were was to be, for example, some incident that caused a big problem for EDF and its nuclear fleet, we could buy - and very nearly did buy - from suppliers in Italy or anywhere else. The Italians are offering hydro, an element of hydro. In the end, it was not the right balance against the criteria of cost, environmental performance and security. So in the foreseeable future, and I would say probably 15, 20 years, it is hard to imagine a crisis in energy that the existing infrastructure we have in Jersey could not cope with. Even if we lost all our electricity importation facilities ...say something awful happened and wiped out most of the grid system in the west of Normandy, you can buy gas turbine power generators on floats, and providing you can get oil delivered to the Island you can plug them into the network here. You know, most contingencies are catered for here. What is not catered for is a systemic - across all fuels - issue, which on the cost issue is inevitable to a degree, that the era of cheap energy has gone, not least because the oil supply/demand ratios and not least the political tensions there are no longer favourable. There will have to be an increase in energy cost, and if you ignore the market behaviours of a doubling of global energy requirements by 2050 and if for no other reason, energy prices will have to go up, because at present rates the capital markets will not fund energy infrastructure investments.

**Deputy J.H. Young:**

So it is inevitable?

**Mr. M. Liston:**

It is inevitable. There is a tipping point where the markets will say: "Yes, at that electricity price we're prepared to invest in new power generating capacity." But until then they won't. It is normal economic behaviour....a commodity will get more expensive as demand nears supply. So prices rise and at a certain point are high enough to encourage new supply, which reduces the price.

**Deputy J.H. Young:**

Included in your shocks: "Dramatic change in political structures in Europe." Would that disrupt this intergrid system which you are describing?

**Mr. M. Liston:**

Chairman, I suppose really with the financial crisis and the behaviours one sees of governments that previously you would have said were a safe bet, you would be less confident as a developer that long term policies to subsidise renewable energy will be honoured. One of the businesses I chair has suffered quite badly. Thankfully, we have not been overly dependent on Spain, but we invested hundreds of millions of pounds in Spain against 25-year guaranteed tariffs for solar energy. The bankers, everybody ... nobody thought that a sovereign power would effectively default and they did. They said: "Well, retrospectively, the 25-year guarantee we gave you, we are withdrawing it." They did not withdraw it completely but reduced it significantly, and now no-one is investing in renewable energy in Spain.

**Deputy J.H. Young:**

So there is a risk?

**Mr. M. Liston:**

But nevertheless, as a consequence, we would not invest in Spain ever again. Italy is wobbling now too. I would have dismissed that 3 years ago and said: "No, it is not possible."

**Deputy J.H. Young:**

Because I think this grid obviously depends on co-operation. I do not know anything about ...

**Mr. M. Liston:**

There is a legal framework there.

**Deputy J.H. Young:**

That is administered by Europe, as in Brussels, is it?

**Mr. M. Liston:**

Yes, it is. Jersey Electricity has a legally binding long-term energy contract with whichever supplier we go to. It happens to be EDF now.

**Deputy J.H. Young:**

So they administer all the inputs and outputs of it and they control it that way?

**Mr. M. Liston:**

Brussels do not get involved. They simply put the legal framework in place that says energy transactions ... well, basically it is contract law, and so far, although sometimes you need a lot of stamina to go through it, the law does prevail there. If EDF reneged on its supply agreement with Jersey, we would take them to the European courts. I would have said 3 years ago it is not foreseeable that France would do that, but I think I am not sure there any jurisdiction you can say that about now.

**Deputy J.H. Young:**

Steve, do you want to come back in?

**The Deputy of St. Martin:**

Yes. I just want to take us back to a very much more localised framework there, Mike, and I had: "Diversity for the future" down in a big box here and you quite nicely took me into that. You mentioned gas and you said you might come back to it, and if we could just maybe spend a few minutes talking about gas, because gas is the one infrastructure that we do not have an awful lot of in Jersey. We obviously have a really good electricity network, we can get fuel, oil and diesel, anywhere by tanker, but gas is an issue. Where do you see gas going? We have been told by the gas company that we have got this gas and all sorts of new sources that are potentially huge volumes and reducing prices potentially, but do you think that there is a future for gas in Jersey, given that our infrastructure is so small currently and we would have to invest heavily in capital to distribute it?

**Mr. M. Liston:**

Yes. Well, one thing, my perspective on this is because in looking at where the renewable companies that I am involved in are going over the next 20 years, we clearly look very hard at the various authorities' views on what energy prices are going to be looking like in various parts of the world, and so all I can give you is my best summary of what that is. Gas is without doubt the most interesting element of the fuel mix in the whole energy scene globally, as you have probably been told. It is very much seen as a transition fuel from the old fuels of oil and coal to a future which is virtually carbon-free renewable energy. Gas is fundamental to that journey over the next 40, 50 years. When we, Jersey Electricity, in 1997 finally made the decision that our next big investment

on energy infrastructure would be a second interconnector - the one that thankfully is still working perfectly well, and this was the one that we connected from France to Jersey and on to Guernsey - we did so only after about 3 years of appraisal, and not just planning, John, but economic appraisals on what would be the best, the optimum for security of supply, environmental performance and cost. We looked specifically at a gas interconnector, and in the end we had to rule it out. It failed to compete with the second interconnector simply because of the point that you make, the gas market here is very small and getting gas delivered to Jersey by pipeline is capitally intensive.

[14:30]

So earning a return with a small volume market to pay off the capital investment in the infrastructure you need to transport it did not work, unless at that time - and I cannot remember what the gas prices then were compared to now - you were prepared to have highly interruptible gas supply contract tariffs, which meant that you were paying less for the gas because there was a risk that it would be disconnected at any time. That is a fairly common feature of gas markets, unless you were prepared to accept interruptibility, you could not get the gas cheap enough to be able to pay for the cost of the interconnector and sell it at the market rate in Jersey. What has changed since then? There is a view, and you will have no doubt heard it already - and if you have not, you will do; I am sure you will - be looking at various authorities in not least the U.K. Government's own advisors on the energy market. The jury is out as we speak on the impact of shale gas in the gas market. There is a belief, and I know that Jersey Gas - or is it Guernsey Gas now - propounds that it is going to be such a spectacular impact in the U.K. as it is in America that world gas prices are going to fall. That has largely been dismissed by the energy industry, I have to say, and I wish I could be saying to you it is a no-brainer, you just build a pipeline to Europe. It is not at all like that. I think the American case is a special case, as you probably know, and it has been dramatic. The conditions that enabled shale gas to have the impact it has on energy prices in America are firstly at the moment confined to America, although the Americans have just agreed they can export it now, and they probably will do. The U.K., the European market is more constrained. A discovery of even 10 times what people currently believe the reserves are, the recoverable reserves - and the extent to which they will be allowed to recover them is another issue, proper environment and planning and social sensitivity issues - but even if it was 10 times what it is currently being hawked around as the opportunity, the size of the U.K.'s shale gas reserves compared with the gas market that it is connected to, which is Europe, is relatively modest. Is it going to shift gas prices in Europe, which are pretty uniform across Europe? The answer is no, it is not. Even if the U.K. was 60 per cent shale gas, it is unlikely to drag down market prices in Europe, and that is the price that determines gas prices in UK. Not least, as I say, the U.K. Government Committee on Climate Change believe that it is not going to have a material impact, and that globally the demand increase in Asia, in particular, all the developing nations, is

going to increase gas prices, but that the rate of increase will be subdued by the shale gas phenomenon.

**Deputy J.H. Young:**

But gas also suffers that it has got quite a constrained local network here anyway, is it not? It does not go anywhere.

**Mr. M. Liston:**

That is the case, and that is the case in much of Europe, that the cost, you can get it out of the ground, subject to some risks, and not least environmental, but to transport it you have got to liquify it, and that is hugely expensive. But ...

**Deputy J.H. Young:**

So this transition that you have spoken about for gas as the energy to take us from oil and petrol to fully renewable, it is not a cheap transition then?

**Mr. M. Liston:**

No. I do not think any of the energy options in front of the world are cheap anymore.

**Deputy J.H. Young:**

So, for example, electricity generation being ... we can discount electricity generation being fired by gas, because you have still got your carbon emissions, it is more expensive.

**Mr. M. Liston:**

Yes.

**Deputy J.H. Young:**

Because if there is no network there, that is the only thing logically to do with it, is put it into ...

**Mr. M. Liston:**

That is right, and that is very much the difficulty with extracting that shale gas outside of the U.S., which has quite a nicely distributed shale gas resource and quite near to centres of demand.

**Deputy J.H. Young:**

So for all those reasons, Mike, you would have the personal view that having explored all those things, that in a long-term strategy, gas is likely not to feature majorly in a long-term strategy?

**Mr. M. Liston:**

I always look at these things out of this harsh reality of being beaten up when you go to the stock exchange and say: "We want to go to a secondary or tertiary fundraising" or you go to the banks and say: "We want to borrow this."

**Deputy J.H. Young:**

So that is the test?

**Mr. M. Liston:**

That is the test. So the test is can you borrow money, or raise it by selling shares, for an energy project where the risks of the project not paying its way over the 25 years of its life are perceived to be high. If a jurisdiction doesn't have recognisable and reliable legal, political, Licensing and Consenting, and tariff subsidising structures in place, no one will lend, or if they do the risk premium will make borrowing costs prohibitive.

**Deputy J.H. Young:**

You go to the banks with your proposals: "Fund this. What is the price"?

**Mr. M. Liston:**

Exactly.

**Deputy J.H. Young:**

So that is the test we should apply to everything here, really.

**Mr. M. Liston:**

I do think so, because at the end of the day, whatever the political merits and strategic merits pursued by politicians honourably, the harsh reality is that the utopia that politicians would be looking to achieve has to confront reality when it comes to funding it.

**Deputy J.H. Young:**

It is interesting you have used that phrase. I think we may be quoting you. No particular politicians in mind? **[Laughter]**

**Mr. M. Liston:**

Only the ones you might be thinking of.

**Deputy J.H. Young:**

Can I shift, because, Mike, we have overrun.



**Mr. M. Liston:**

I am all right.

**Deputy J.H. Young:**

Are you okay for us to carry on, because there are a couple more subjects before we close. I would like to talk to you briefly - and I hesitate to say this in what you have said about governments and so on - regulation, your overall view about regulation of energy supply arrangements in the Island. In Guernsey, we had a look. They have structures in place, but in Jersey, what are your feelings about this? If we had a regulatory structure, for example, to help us with tariffs and so on that cut across different energy providers, would that further worsen the problems that you have explained of government interference getting in the way of commercial ... or do you see that if we got it right that there are some gains there?

**Mr. M. Liston:**

Yes. It is an understandable question. I suppose I come at this from ... and I get involved with regulatory authorities in several jurisdictions in the world, and I think my starting position - and some of them are quite small, like Jersey - is in looking at a new market for what we do is what is the market structure, number one, what is the legal framework that is driving the policies that will enable us to raise the funds to invest in this jurisdiction, but the second one, the second consideration is what is the market structure; never mind the legal structure and the policy structure, what is the market structure? Ideally, a fully competitive market is the ideal, then you do not get any irrationality, you know how markets are likely to behave in certain circumstances. You cannot say that about regulators or politicians, with all due respect.

**The Connétable of St. John:**

You are absolutely right.

**Mr. M. Liston:**

So regulation, in my view, it is a default when competition is not feasible, and I think it has been looked at in Jersey many, many times and concluded that the electricity market in Jersey is too small to be opened up to competition. The merits just are not there, even if you found something of interest. So then what is the case for regulation? Well, if you look at the electricity market in Jersey, the natural monopoly, and this is the case, it has been recognised in the UK and more or less everywhere else in the developed world, is they say: "In electricity, the natural monopoly is the wires." You know, it is the cables under the ground and so on. That is infrastructure that we rely on the incumbent to install and mostly they were installed with the privilege of monopoly. That is the only way that it could raise the funds to install them, but with that infrastructure in place, and we are willing to say: "Yes, it is a monopoly that you own and operate that and we will regulate the prices there" and you say: "Well, you cannot just goldplate and say, 'Well, we spent £100 million

on new cables, but we want a rate of return of 25 per cent' when the market says, '6.5 per cent, 7 per cent rate of return is acceptable for electricity infrastructure investment'." So you need a framework in place of some kind to make certain that the use of that transmission or electricity distribution system is not abused by monopoly. So that is fairly easy to do, it is done everywhere, and frankly, Jersey Electricity has adopted it because it has always been thought at Jersey Electricity that one day somebody - and it could well be an aberrant decision - is going to say: "Right, we are going to regulate the electricity industry, and by the way, you have to accept a rate of return which is the average rate of return in regulated electricity companies for the electricity supply system that you operate." So Jersey Electricity has adopted the sort of 6.5 per cent rate of return on investment, and that drives normal prices. For the electricity infrastructure business, that leaves the electricity generation activity, and that is the one that around the world largely is open to competition. Now, in Jersey, that competition is at work, because Jersey Electricity goes out every 5, 7 years - in one case it was 10 years - to European suppliers and says: "We want 1,000 GWhs per year for the next 10 years. We want you to bid on prices, on environmental performance and security of supply standards" and it picks the winners. It very nearly was not ... and this is confidential, this little bit ...

**Deputy J.H. Young:**

Well ...

**Mr. M. Liston:**

I can tell you.

**Deputy J.H. Young:**

No, it is being recorded. It will be, so ...

**Mr. M. Liston:**

Yes. It should not be assumed that ...

**Deputy J.H. Young:**

Provide it separately if you do not want to ...

**Mr. M. Liston:**

Okay. Let us put it like this: I simply say that the full discipline of commercial marketplaces were very much at work and the decision on who to buy electricity from in the contract that was signed probably now 3 years ago was a very close-run thing, as it should be in a competitive environment.

**Deputy J.H. Young:**

So the lesson is that because we have got those arrangements, that gives us the competition?

**Mr. M. Liston:**

Exactly.

**Deputy J.H. Young:**

The competition comes from elsewhere and that there is not the case for that degree of regulation?

**Mr. M. Liston:**

I do not think so.

**Deputy J.H. Young:**

I mean, that is the ...

**Mr. M. Liston:**

I do not think so. The Regulator (CICRA) recently did a review of the electricity market's behaviour, I think last year, and it concluded that although it would keep a watching brief, it found no cause for believing there was any exploitation or abuse of monopoly.

**Deputy J.H. Young:**

Yes. No, I am mindful of the clock now, because Roger, our advisor, has to leave us in 10 minutes' time and I want to make sure that my colleague ...

**The Connétable of St. John:**

Probably you should give him some time, because Roger has got some questions.

**Deputy J.H. Young:**

Yes. Roger, would you like to pick up the questioning?

**Mr. R. Levett:**

I am happy so far, so I do not need anything else.

**The Deputy of St. Martin:**

Could I just push on with the commercial competition that we have just been talking about, Mike? How do you see that influencing the partnership that has been proposed in this document to move to the future? We have had some people who have given us some very strong views on how they feel that any partnership which leads to the policy needs to be taken away as much as possible from politics and from politicians.

**Mr. M. Liston:**

Absolutely, because I can tell you, hand on heart, that if there is any political ... if there is any room for unregulated political interference in the market mechanisms available to investors in energy infrastructure in Jersey, we will not get anyone anywhere near it.

[14:45]

That is probably the strongest issue that affects the appetite to risk amongst inward investors in energy, because the risks are high enough without political intervention and the risks of the capital cost anyway of building, so: "It only cost me £600 million to build this tidal farm or this wind farm" when it really only cost that because we do not know enough about the seabed at the moment or the cost of the grid connections and all the rest of it. The tariff mechanism on which I will earn a return on that investment, how safe is that, à la Spain, à la Italy and other places that have done a default on that, on earlier commitments? All of those risks are bad enough and very often will exclude a lot of otherwise worthy cases for exploiting a natural resource in a particular country. All of those are big enough risks anyway, but to have them compounded by the freedom for political intervention in the absence of a legal framework that binds the achievement of a particular objective, largely emissions reduction, is a no-no.

**The Deputy of St. Martin:**

Would you take that down as far as the micro-renewables when we are trying to encourage people to do every little bit they can at home? Do you think politics should stay out of that as well?

**Mr. M. Liston:**

I would say I think it is far less relevant, because firstly, people at that level, the micro level, make those investments for other than economic reasons. As developers, we have got shareholders we are answerable to. We cannot be sentimental about it. It is: "That is the business, this is the return, lend us the money. We will give you 6 per cent per annum." If it is at the micro level, often people do not need to borrow to do it. They should perhaps have grant aid anyway to encourage them to do it and they will do it for ethical reasons, other than economic ones, so I do not think it is important at all.

**Deputy J.H. Young:**

Phil?

**The Connétable of St. John:**

No, Mike is singing from the same song sheet as I am, as far as the Government is concerned.

**Deputy J.H. Young:**

Can I ask you, partnerships are obviously key to this, I think, or are one of the key elements. We have got a number of players here. I think you have spoken about the French, you have explained to us the importance of the European grid and the French. Do you want to add to that in any way in respect of, for example, Guernsey connection and so on, working with other partners? You are probably very - not probably, I know you will be - experienced in this, experienced more than anybody. Are there are any lessons coming out of that in terms of the future direction that we should factor in?

**Mr. M. Liston:**

Yes, I think so, and over the years, I have been encouraged by one Minister or another to take part in an - especially Guernsey - initiative on something which had got commercial implications. I have said every time the politicians should be facilitators if the business rationale for doing something hits a social block somewhere, a societal block. Otherwise, the commercial rationale should determine the merits of joint working and the politicians should be there to put in place the frameworks that are needed to ultimately fund them, give the confidence.

**Deputy J.H. Young:**

Right, so the political role is facilitative?

**Mr. M. Liston:**

It is a follower rather than a leader, in my view.

**Deputy J.H. Young:**

The doing is a product of the commercial soundness of the underlying agreements?

**Mr. M. Liston:**

Yes, if and when needed. In Guernsey, I am pleased that that second interconnector, the one that we managed to get eventually Guernsey to participate in. Although clearly there were political implications to it, it was driven by commercial rationale. There needed to be a lot of lubrication by politicians, particularly in Guernsey, because of the nature of that relationship and here we turn up and say: "Would you like to contribute to the cost of this and we will give you this in return?" Naturally, suspicions arise, so it did take a lot of statesmanship from some politicians to allow that to happen, against some entrenched positions.

**Deputy J.H. Young:**

I was listening to Guernsey States the other day announcing the announcements. They were singing a different tune, I think.

**Mr. M. Liston:**

Yes. I mean ...

**Deputy J.H. Young:**

You do not have to comment.

**Mr. M. Liston:**

No, no. Probably best I do not, because I would be speculating.

**Deputy J.H. Young:**

I think we are ... Roger?

**Mr. R. Levett:**

I am afraid I have to go.

**Deputy J.H. Young:**

Mike, I think I am going to close the session at that point, so a huge thank you for all the information you have given us, extremely helpful indeed.

**Mr. M. Liston:**

I am very happy if there any ... because there was a lot to say and an awful lot is unsaid, and I had to gallop through and sometimes perhaps go off tangentially to try and give some context, not knowing how deeply involved you are in all this, but I will happily help to clarify anything.

**Deputy J.H. Young:**

Okay. Well, thank you very much. I will formally close the session.

[14:51]