



Environment Scrutiny Panel Energy Policy Review hearing with Jersey Electricity

TUESDAY, 11th 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

Witnesses:

Mr. C. Ambler, Chief Executive, Jersey Electricity
Mr. I. Wilson, Brand Manager, Jersey Electricity

Also present:

Mr. R. Levett (Panel Adviser)

[15:34]

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

Welcome to this afternoon's session of the Environment Scrutiny Panel, continuing with our series of hearings on the draft energy policy of the Minister for Planning and Environment. I will introduce myself, John Young, Chairman of the panel.

Deputy J.H. Young:

Thank you very much. We are in a public hearing session. You had the little note of the rules here. We are tight for time because I think, Chris, you are also talking to us later on in another ... Mr. Wilson is. So we will try and confine the session to about an hour, if that is okay. That may not seem very adequate. We will see how we go and what we have covered.

Chief Executive, Jersey Electricity:

Okay, I would say, Chairman, at the outset, I would be very happy to spend more time. I mean my gut feeling is probably an hour is not quite enough but very happy to see how we proceed with that.

Deputy J.H. Young:

Shall we see how we go, because I accept you are definitely a very important witness to the panel. Thank you for coming along this afternoon. I think I want to begin just by asking you one or 2 high level questions. We have here a plan which has at its heart a target of reducing the Island's carbon consumption by 80 per cent by 2050. I wonder if you could give the panel your views about that target, whether you think that target is realistic or unachievable, and is it the right one?

Chief Executive, Jersey Electricity:

I wonder if, Chairman, it might be helpful for me to just sort of give a little bit of context on Jersey Electricity and then I am very happy to run straight into that question. If we cover 3 things: first of all what are we as a business trying to achieve? Secondly, how we are doing against that and thirdly, maybe just set out very briefly a few principles around which we run the business and then, Chairman, I will be very happy to run straight into your more specific enquiry. We, in Jersey Electricity, are under no illusion, we have an extremely important role to play in society in Jersey. We have around 40 per cent of the final energy market. It is absolutely clear to us the responsibility that we have in keeping the lights on and making sure that we support life and support economic growth in the community.

When we talk to our customers they tell us that 3 things are important. First of all, they would like their electricity supplies to be affordable; secondly, they would like them to be secure; and thirdly, they would like them to be sustainable. I think the challenge really for us, as a business, is how to do all those 3 things simultaneously and to do it, not just over the short term, but over the long term as well. Those are probably 3 terms that you will recognise. They are widely discussed in energy circles in the Island and off-Island. And they are also concepts that are addressed in the energy plan as well and we would clearly support that.

If we look at how well we think we are doing against those 3 areas, we have a number of targets that we set ourselves. First of all on the affordability spectrum, we would like to be within plus or minus of 10 per cent of the standard E.U. (European Union) average tariff. I am pleased to say that on average our standard tariffs are presently around 12 per cent cheaper than the E.U. average. I am also pleased to say we are cheaper than Guernsey, cheaper than the Isle of Man, cheaper than Ireland, and if we look over the last 3 years electricity prices, yes, they have gone up, they have gone up by 13 per cent, but I think they compare very favourably still with oil and

gas, which have gone up by around 40 per cent over that period. So in terms of affordability, which customers say is extremely important to us, we are very comfortable with where we sit on that. Obviously we would like to be even better but we are in reasonable shape.

On security, which is the second dimension I addressed, we aim to deliver power reliably to customers and we aim to interrupt supplies to customers no more than 25 minutes per year, which is around 3 or 4 times more reliable than the U.K. (United Kingdom) performance. That is our target. Now notwithstanding that last year was a very challenging year, and I can tell you now quite upfront, we did not achieve that target last year because of interconnector failures, and very happy to discuss those in more detail, but so far this year we are on course for a customer minutes loss figure of around 10. This is the primary supply reliability measure, so we are presently significantly better than target, with the C.M.L.s (customer minutes lost) figure well below the target, and that is presently on course for electricity reliability of around 8 times better than the U.K. So again, good; obviously we want to be even better. Last year was a very difficult year. As I say, I am happy to discuss that in more detail. The third dimension is we aim to deliver energy into the community here that is cleaner than other fuels, i.e. that is cleaner than L.P.G. (Liquid Petroleum Gas) and cleaner than oil. Our target is to be better than them and as we are proceeding so far this year, we presently expect by the end of the year to deliver electricity with an average carbon intensity, so that includes a blend across imported power and also locally generated power, that is lower than gas and oil. I would say that historically we have had a tremendous track record on this and we have mainly achieved that through importing quite large volumes of power, which comes from nuclear sources, so is naturally low in carbon. Normally our target is to deliver power at less than 100 grams of CO₂ per kilowatt hour. We have flexed that target to be cognisant of the fact that we are down to a single cable between France and Jersey, so we are trying to reflect the fact that we have more on-Island generation. But nevertheless we want to deliver power that is cleaner than competitor fuels. So overall, if you look across those 3 dimensions, we are very pleased with the way we are performing across those dimensions. Obviously we would like to be even better and of course delivering that, I think, is particularly good in the context of a very challenging year that we had last year, when we lost one of our interconnectors.

If I might now just talk a little bit about the way we run the business because I think this might give some guidance on some of the questions that we may run on to later, without wanting to prejudge what you are going to ask. Sustainability is really at the core of our business, and that is sustainability defined in the very broadest terms, so it is not just about delivering clean energy, it is also about taking a long-term view, it is about being fair on stakeholders; on customers, on employees, on shareholders. It is of course also about taking care of the environment, we have a wonderful Island here, we want to do everything we can to preserve that. The litmus test on this

for us is what would our customers want us to do in this situation because, to all intents and purposes, our customers indirectly, through the States, in effect, own the business, as well as being customers to the business. So what would they want and, secondly, what are they prepared to pay for? That leads us to a principle of “user pays”, which is that we have a duty to the community to make sure that we deploy capital in the most efficient way and that we provide efficient services and, secondly, that the beneficiary of a product or service or asset, i.e. the customer that is enjoying the benefit of that sub-station, if that is what it is, then they should pay for it as long as that capital has been efficiently deployed and as long as we are providing efficient services. If you do not do this we feel we get issues of fairness. We find ourselves cross-subsidising one customer with another and we are not really equipped, as a business, to discriminate across customers. We are not equipped as a business to deal with hardship cases, cases of the elderly, the vulnerable. We believe that the States are far better positioned to make those sorts of judgments. We have a very simple remit. We run this business in the most efficient and fairest possible way and if people need extra support then the Government is best placed to provide that through, for example, things like cold weather payment and income support.

I will just make a final point before I come on to your specific question. Obviously the energy plan is focused around reducing carbon. Obviously we have to be mindful of the affordability and security of supply issues. I would just like to be absolutely clear and upfront, that over the last 20 years or so Jersey Electricity has pretty much, single-handedly, driven the reduction in the Island’s carbon emissions by about a third and that is despite about a 40 per cent increase in the consumption of our product. So we are tremendously proud of what we have done for the Island. We have not been mandated to do that. Obviously there are other factors that come into play in the way we supply energy, but that is something that has certainly given the Island a tremendous push start at delivering against a Kyoto target.

[15:45]

By the way, we take the view that just because we are importing energy and not generating it locally we are still responsible for energy emissions over the full value chain. So this is not a case of us just choosing to outsource that to France because it is convenient from a Kyoto accounting perspective. So we want to support the energy plan. We believe it is important that it is done fairly and in a way that creates the right kind of incentives.

On to your specific question, Chairman, I think it is a very stretching goal but I think it is achievable if we all work together across the public and private sector. I think that it would be disappointing if our target was not at least as stretching as some of the other bigger jurisdictions. I am from the U.K. myself, I am pretty well plugged into what is going on in the U.K. and Europe and, let us be

frank about it, Jersey is a relatively wealthy nation and I think we should be doing our bit, that is obviously proportionate with our size, to reduce our own carbon emissions and I absolutely support the energy plan and what it is trying to achieve.

Deputy J.H. Young:

Thank you for that very comprehensive statement. Can I raise one point in detail first, get it out of the way and then perhaps a point in principle on what you said? You said that you were not using the rules on carbon accounting to effectively ensure that Jersey met these targets. Could you explain that a bit more? You are working within a system that is externally decided, are you not? The rules are that those emissions do not count, do they?

Chief Executive, Jersey Electricity:

Let me just clarify that. Basically as a business we publish an annual report like most businesses and we set out there basically the progress we make against our goals, in effect. I know that the States of Jersey, I think, adopt the Kyoto accounting methodology. That is absolutely fine and would support the continuation of that. Under the proper accounting methodology any imported energy, any imported power, you effectively ascribe zero carbon intensity to because it is imported and emissions are accounted for in the place of generation, not in the place of consumption. Now, that is fine, and you have to have a set of accounting rules around these things. No issue with the States of Jersey calculating the Island's emissions in that way, but we believe that we should have a broader responsibility of the whole value chain. We choose who supplies our energy and we choose how that energy is produced. We feel that it is appropriate for us to be aware of where that energy comes from, what the carbon intensity is, what the global impact, if you like, is of our relationship with that supplier. So Jersey Electricity in its reporting takes a more conservative view of this, and we include emissions from our supply chain in France in our reporting.

Deputy J.H. Young:

I am sure we all agree with that. I think I was just trying to clarify this point, you said on the one hand that the company had reduced ... had to cope with an increase in demand at the same time as reducing our carbon emissions. Can you explain that a bit more? If that counts as zero how we manage to achieve that reduction.

Chief Executive, Jersey Electricity:

Because the carbon intensity of our competing fuels here, oil and gas, are very high, and electricity is very low. Under the States methodology, any imported power is zero. Obviously we take into account power that is generated on the Island so we have to ascribe the carbon intensity in relation to that portion that is generated on the Island. But really the reason why we have been able to reduce the emissions so much is because we have effectively decarbonised our supply

chain completely by shifting from locally generated electricity created from the burning of fossil fuels at La Collette to imported power created from nuclear sources and we have also managed to displace or win market share from competing fuels, i.e. oil and gas.

Deputy J.H. Young:

So there has been a transfer into the electricity market. Do you have any figures on that roughly?

Chief Executive, Jersey Electricity:

Until we lost our cable, the original EDF1 cable, last year we were typically importing somewhere in the region of 90 to 95 per cent of our requirement from France. So 90 to 95 per cent was from France imported, around 5 to 10 per cent was generated locally. When you calculate the blend of carbon intensity, i.e. the mix of carbon intensity across import and locally generated, you get to a figure that is somewhere, from memory, around about 70 grams of CO2 per kilowatt hour. Now because we have lost one of our importation assets, one of our cables, on a temporary basis, that carbon intensity will go up slightly over the short term but, as you are probably aware, we have now initiated projects to install 2 new cables, one which will be in service in 2015. That will then enable us to restore virtually full importation and that carbon intensity will come down. But to this point, over the last 20 years we have reduced the carbon intensity of the Island by around a third and, as I say, that is despite a significant increase in the demand for our product.

Deputy J.H. Young:

And the transfer of customers from other fuels that you spoke of, what sort of numbers have come over there?

Brand Manager, Jersey Electricity:

Eight out of 10 new build are electricity in terms of not just generalising in power but heating as well. So certainly the new build and that has been over the last 4 or 5 years. So certainly new build. In terms of customers transferring, I am trying to answer from a J.E.C. (Jersey Electricity Company) perspective and not my previous employer, but there is a shift I would say in excess of maybe 100, 150 customers a year, that we see. Obviously we do not see every single customer. We see their load increasing but unless the customer comes to us to do that particular work it is difficult to say.

Deputy J.H. Young:

That trend has continued, has it, despite your loss of the interconnector?

Chief Executive, Jersey Electricity:

I mean it is certainly on new build and that is because we have a very, very competitive product on new build. As Ian has said, we win for heating load, which of course is the market in which we compete with oil and gas, we win typically 80 per cent of new heating load associated with new connections.

The Connétable of St. John:

Can it be right though that carbon emissions are charged to the French against themselves when in fact they should be charged here at this end. At some time in the future the French might turn around and say: "Sorry, we have enough problems trying to meet our carbon emissions" therefore it goes back to the end user to let them justify buyback and therefore all of a sudden 3, 5 years down the road, J.E.C. might be told: "Sorry, you cannot use the suppliers at the supply end but the end users end to measure your carbon emissions."

Chief Executive, Jersey Electricity:

This is one of the reasons why we strike long-term agreements with suppliers in France. You are probably aware that the French grid is fed by a majority of nuclear-generated capacity. Around 70 to 80 per cent of energy that is generated in France is from nuclear sources and if we do not go to EDF we will go to an alternative supplier. If necessary we can buy the carbon credits to support that energy composition. So we feel fairly well covered on that, partly because of the structure of the market, partly because there are competitive choices that we can make. We do not have to go to EDF, there are alternatives.

The Connétable of St. John:

But if the French Government make a diktat that it is going to be charged at the other end, those companies operating in France will have no alternative but to pass it on to the end user.

Chief Executive, Jersey Electricity:

We are effectively already paying for that. We already contract with EDF and its "certified" nuclear power, we pay a very small fee for that, and that is because effectively they are "long" on power of that composition. I think the other thing to mention is that the French Government cannot act entirely unilaterally on this. They operate within the E.U. There are quite strict E.U. guidelines on the accounting for carbon emissions and there are standards which they need to comply with, so it would be quite difficult for them to renege on our agreement.

The Connétable of St. John:

To go a step further, if the E.U. make a diktat that it will be charged to the end user and we are not in the E.U. anyway, overnight our carbon emissions may go from X right up.

Chief Executive, Jersey Electricity:

It would not go overnight because we have a 10-year agreement with EDF to do that. The power is certified low in carbon emissions. Now what that means is that because EDF have sold us that power that is certified nuclear they cannot sell that power to anybody else.

Deputy J.H. Young:

It is a 10-year agreement, is it?

Chief Executive, Jersey Electricity:

Yes.

Deputy J.H. Young:

So there is 10-year security, if you like, for nuclear power source in your contracts?

Chief Executive, Jersey Electricity:

In fact, there is also a special block of power ... there is a portion that is certified nuclear and there is a portion that is certified hydro, that is if you like pure green, if I can put it like that. Again, there is a proper paper trail that evidences the source of that power that is supplied to us.

Deputy J.H. Young:

And beyond that, beyond the 10 years, when will you normally get into renegotiating those agreements or settling them?

Chief Executive, Jersey Electricity:

We will start to think seriously about that in about 5 or 6 years' time.

The Deputy of St. Martin:

Specifically on that point, I was just going to ask whether it was a 10-year rolling agreement, but Chris has just answered it is not.

Chief Executive, Jersey Electricity:

No, it is not.

The Deputy of St. Martin:

Before we move away from your opening statement, could I just clarify something that you mentioned about cross-subsidisation? You used the analogy with a substation and you said not expecting the people who have a substation ... we expect them to pay for it, but you do mean if you built a new substation in Jersey that everybody in Jersey would have to pay for it, not the people who are specifically just using the ...

Chief Executive, Jersey Electricity:

No, that depends. If we look at our high voltage network, which is typically our 90 kV network, a good example of that is the South Hill substation that we spent £12 million on a couple of years ago. On the high voltage network, the 90 kV network, basically we, Jersey Electricity, the business, bear the cost of that. Ultimately all consumers across the Island benefit from that infrastructure. If for example, a developer approached us and said: "We are building a big block of flats and we would like you to provide us with power and it requires a substation" we would expect that developer to fund the infrastructure that they will be benefiting from.

The Deputy of St. Martin:

So the capital expenditure?

Chief Executive, Jersey Electricity:

So the capital expenditure, yes. For example, Mrs. Bloggs who lives in St. Martin, why should she bear the cost of infrastructure that is being constructed to benefit a big developer in St. Ouen, who is building a big block of flats? It is the user of these flats that will benefit from that infrastructure. For us that is unfair and that is also not typically the way it is done in the U.K. and Europe. U.K. and Europe would adopt a very similar approach to the approach that we are adopting here. Can I just raise one other thing on that? There are occasions where a developer might approach us and say: "Well, we would like a substation here of, say, a megawatt and we might, as the utility, determine it will be better if instead of building a 1 megawatt facility we build a 2 megawatt facility because our network would benefit from the enhanced security that would provide, then we would apportion that partly to the developer and partly to the grid. In other words, partly to our own account, and it would be done on a pro rata basis. So in other words, the principle is "user or beneficiary" pays. We deliver an efficient service and the beneficiary of that product or service, or that piece of infrastructure, would bear the cost of that.

The Deputy of St. Martin:

Would you look to recover 100 per cent of the capital outlay on a substation for a block of flats, for example?

Chief Executive, Jersey Electricity:

If they are the sole beneficiary of that infrastructure then yes. It is our job to make sure that that capital is deployed in the most efficient way, so we regularly go out to tender, we benchmark ourselves against other utilities to make sure that the costs that we are charging consumers is competitive and fair.

Deputy J.H. Young:

In your policy introduction, if you like, you spoke about “user pays” principle and you spoke about the States, in particular, being in a better position to take those judgments, particularly where the question of cross-subsidy was involved. Obviously you dealt there with capital installation or capital costs on new developments but what about ongoing costs of supply? I would like you to explain a bit more what you think ... the sort of judgments that you would be expecting the States to make? Because what that comes across to me is that you have a very clear view of user pays, it is a very sort of closed pot system and that the States decides externally by providing external subsidies and so on. Is that what you are saying? Have I understood that correctly?

Chief Executive, Jersey Electricity:

A good example might be social tariffs for example. I think at the outset it is important to realise that a social tariff or a subsidised tariff for a vulnerable member of the community, there is a cost associated with providing that, in that we are effectively providing those electrons at below cost, and therefore somebody else needs to pay. We would have a challenge in introducing a social tariff if it meant that the tariffs to all of our other customers would go up in order to fund that requirement. What we are saying is it would be far better, and the States of Jersey for example is in a far better place to judge people’s social need and the vulnerability of these consumers than we are.

[16:00]

For example, we do not have any visibility of how needy a customer or member of the public is. When a customer rings us up we have no idea how old they are, whether they are a pensioner, whether they are elderly, infirm, what their income is, what their expenditure is. So it is very difficult for us to make those sorts of judgments when a customer rings up, whereas I think the States of Jersey is far better equipped to make those sorts of judgments, has much better, high quality information around those things, and if they believe that a cold weather payment, for example, which is a system that is currently in existence in Jersey, whether they determine that an individual across the other side of the desk is vulnerable, then they can make provision by offering them a winter fuel grant.

Deputy J.H. Young:

So that is one example, to take the example of a social tariff; what about the issue of a rising block tariff. For example, here we have a strategy that seeks to achieve reductions in energy demand. A whole host of sections, domestic, industrial, agriculture, and so on. You have seen those in there, there are targets in there. The question is, what measures have the States got in terms of

public policy tools to bring that situation about? I think what you are suggesting is one can just basically rely on the market; I think that is what I am hearing.

Chief Executive, Jersey Electricity:

No, what I am saying is that the States have a very important role in judging the vulnerability of members of the general public and have access to much higher quality information than we do when judging whether a customer that rings us up is worthy of a subsidised tariff, is worthy of a cold weather payment, et cetera. We just do not have line of sight to that information.

Deputy J.H. Young:

What about, for example, as I understand it, a rising block tariff? We will use that as an example. That would, as I understand it, attempt to ensure that people's basic needs for energy were provided at an economic rate, and higher level consumptions, which were to fulfil demand rather than need, could be charged at higher tariffs. As I understand it, those sort of things are done elsewhere. Are you saying those sort of things are not in accordance with the approach that the J.E.C. wish to see adopted by the States?

Chief Executive, Jersey Electricity:

We do not offer a rising block tariff. I know there has been some discussion in the U.K. about rising block tariffs. I do not believe the U.K. are offering rising block tariffs but the concept was floated because of a worry that utilities were providing cheaper power to bigger users, to bigger consumers. That did not adequately incentivise people to reduce their consumption because obviously the more you consume, the higher the probability of you breaking into a cheaper tariff rate. We are not like the U.K. Basically everybody pays the same per unit tariff, so even our commercial customers on a per unit basis will pay the same as our domestic customers, on a per unit basis, whereas in the U.K. often the bigger consumers get access to cheaper power. We do not do that, so we would not believe therefore that a rising block tariff would be a good policy tool for Jersey. I think the other issue with rising block tariff is that they can disadvantage vulnerable people, pensioners, elderly people, who tend to be home a lot and because they are at home a lot they tend to use a lot more energy, and therefore there is a greater probability that those vulnerable people will then spill into a higher tariff bracket. So it is a sort of worthy objective but in our opinion unfortunately could give rise to adverse and unintended consequences.

Deputy J.H. Young:

It could be perverse, that is what you are saying.

Chief Executive, Jersey Electricity:

It could lead to an unintended consequence that you end up penalising your vulnerable members of the community because often they are the ones that are at home, they are consuming more energy and you could also put their comfort at risk by doing so.

The Deputy of St. Martin:

I just wanted to ask whether the company has had any thoughts on other tariffs such as seasonal tariffs, time-dependent tariffs, or interruptable the tariffs for commercial ...

Chief Executive, Jersey Electricity:

We certainly would consider interruptable tariffs and in fact we are having some discussions at the moment with some customers who may be interested in those. We are working on a green tariff at the moment. I mentioned earlier that we have got access through our contract with EDF, we have access to a hydro block, which is a pure renewable block. We believe that there may well be a market in Jersey where customers might be willing to pay a premium to purchase pure green power. What else can I tell you? So there are green tariffs, there are interruptable tariffs, yes, those are the ones.¹

The Deputy of St. Martin:

How would the green tariff work then? I mean obviously you would then be required ... I know you say at the moment tidal coming from France is 100 per cent green so would you be obliged to purchase a larger amount of that, or would you have enough surplus in what you purchase at the moment to be able to proportion that?

Chief Executive, Jersey Electricity:

Yes, we would have enough cover to offer that product, given our expectations of the demand for that product.

Deputy J.H. Young:

You say, I think, that you feel that the principles on which the company's operations are based and it is for the Government to look at how it achieves or encourages or has measures in place to encourage energy conservation and so on, but given ... what I am puzzled about is that there does not seem to be any incentives in the tariff structures for people that drives this, these really high targets that we have got. For example, let us take domestic. We have a target here of 29 per cent of energy efficient measures to existing buildings. Now we have heard about a scheme, which I think you kicked off, with some investment for energy efficiency in buildings for low income

¹ The Panel was subsequently informed that Jersey Electricity is also considering 'time of day' tariff options which could be offered using their new smart meters.

households. But of course what about the rest? Where are the incentives, where are they going to come from to drive people spending on well tried and tested methods of insulating their buildings and so on?

Chief Executive, Jersey Electricity:

Let me pick up on that, Chairman, because I am glad you raised it. I think my comments were really more around tariffs and tariff structure, particularly around a social tariff, that we believe that the Government is better placed to make those sorts of judgments about members of the population. I think we do have a very active role in assisting all of our customers to reduce their energy consumption, so this is moving away from tariffs on to volume of consumption, if you like. You are quite right, in 2009 Jersey Electricity was the only energy provider in Jersey to provide funding for the Energy Efficiency Service. We catalysed it in conjunction, in partnership, with the States of Jersey. We provided £500,000 worth of funding, and that has been a very successful programme but it has been very much focused around the elderly and vulnerable members of the community. I think there is a significant opportunity for that programme to expand into what we have been describing as the “able to pay” market, so this is a portion of the market who really, in theory, should be able to afford to put in place these measures but, for whatever reason, are not doing so. We think it is right that they migrate into offering these products and services to those consumers. So we are very, very strongly promoting energy efficiency and in fact we can have all sorts of discussions about renewables and about feed-in tariffs and about micro-renewables but the real opportunity in my view on this Island for people to reduce bills is to avoid consuming energy in the first place, and there is a huge opportunity for doing so. I can say that with relative confidence because I know that the quality of the built environment in Jersey is relatively poor. In my view, poorer than the U.K. and I think the average household can probably save 15 to 20 per cent on their energy bills with relative ease. They really have just got to find the cash to deploy in things like draft-proofing, insulation, better heating controls, for example.

Deputy J.H. Young:

But if they are getting cheap energy then I think they are going to be not motivated, they are not going to be bothered, are they?

Brand Manager, Jersey Electricity:

If you speak to Islanders in general, I do not think they would say there is cheap energy. There is cheaper energy in relation to one fuel to another but energy, whether it is in your home or in your car, energy is an expensive commodity.

Deputy J.H. Young:

Are you suggesting there should be grants?

Chief Executive, Jersey Electricity:

I think there should be a package of measures. I think the Energy Efficiency Service has got a very important role in supporting vulnerable members of the community and supporting community initiatives. But I think there is also a bigger role in terms of educating the broader members of the public about how easy it is to save energy. It is not just in the domestic environment, it is also in a commercial environment. It is my view that the average business out there can also save significant amounts of energy. A very good example I can cite is the work we have done over the last 6 to 9 months, a huge amount of work on the Powerhouse building, our own building, because we believe we should be setting an example here. In 6 to 9 months we have reduced our energy consumption by over 20 per cent. I think that is an immediate benefit to us as a business and it will save us money each year.

The Deputy of St. Martin:

You are obviously very committed to that; in the energy document there are some references to the building bylaws being quite strenuously tightened up. Do you see that as an issue which can be overcome financially, when you think about the extra costs there are going to be to building these structures? Is there not a danger the bylaws are going to make the houses even more expensive to construct?

Chief Executive, Jersey Electricity:

I do not think so. I think we have to be sensible about this. I think there are some sensible measures that could be relatively easily and cost effectively done. The interesting thing is, in the new build environment there is a massive opportunity because it is far more cost effective to put these measures in place at the design and build stage than it is in the retrofit stage. It is so much more costly and more disruptive to do it after a house has been built when everybody has got their fixtures and fittings that need to be ripped out, to put in energy efficiency measures. So I think it can be cost effectively done. I mean obviously there is a spectrum there and if you start putting on all the bells and whistles and all the different renewable energy measures then the costs are going to go up. But I think that in the built environment, houses and buildings are built for a 20, 30, 50, 70, 100-year time period so that is the time frame over which you can deploy these measures cost effectively.

The Deputy of St. Martin:

You mentioned the built environment and obviously there is a huge reference here to pre-1997 housing, and you have mentioned it as well, that the possibility in the pre-1997 stock to save energy is enormous. This might not be a very fair question, but how do you feel about the building bylaws and their interaction with historic buildings when you have old houses that you can put a lot of insulation in but we are still told in the Island Plan that we have to use single glazed windows?

Brand Manager, Jersey Electricity:

On that particular point, a personal experience of my next door neighbour who had to put wooden windows in his house, it is a house in town, so it is not a historical building as such, but it is in a typical town street, had to put wooden windows in which were a lot more expensive than new PVC, which the rest of the street has, and he got a cheaper type of glass, less energy efficient, because he could not afford the best glass because he had to put wood. Now he has to paint those windows every year and maintain them. So I think his personal experience is he would have loved to have put the best energy efficient windows he could afford but because of the house that he lives in, he was forced to go in a different route. So in terms of this policy, I think, we failed.

Deputy J.H. Young:

In your statement, the letter that you wrote in response to the Minister's consultation, you were talking about the carbon neutral standards for new homes. You said that this implied, and you expressed a concern that you did not see the limited evidence that were willing to take up the measures, which is kind of what you said in relation to existing buildings, but you said you thought that getting to carbon neutral for new homes would need an uptake of micro generation, which suggest to me a discussion about feed-in tariffs. What I am hearing from you is that you are not keen on those. That is not something you are happy about.

Chief Executive, Jersey Electricity:

On feed-in tariffs?

Deputy J.H. Young:

Yes, to encourage micro generation.

Chief Executive, Jersey Electricity:

Let me talk a little bit about feed-in tariffs. I think that we would ... we already offer, well it is not a feed-in tariff, it is a buyback tariff.

[16:15]

We already offer that. We have offered it for a number of years. We have a small number of customers who enjoy that service. I think there are a few issues, a few challenges for us on that because one of the reasons why there is not a huge uptake of micro renewables is that they are not economically efficient. They are not economically viable on a standalone basis without subsidy. One of the issues for us, as a utility, is that if we were to provide feed-in tariffs or support structures, that comes at a cost. The bearer of that cost will be all of our other customers so we are going to see an increase in average tariffs in order to fund that activity. That then gives us a

problem with achieving our affordability objective. In any case, we would say: "Well, we already have access to low carbon power from France" so, if you like, the green credentials of micro renewables in Jersey is somewhat diluted because we already have access to clean power, it is already low carbon, it is certified, and it is very, very competitively priced. People might be disappointed, that the buyback tariff is not as high as it is in the U.K. Well, the buyback tariff is a reflection of the opportunity cost of us buying power from France, and that is low because it is a very competitive supply chain.

The Deputy of St. Martin:

Is your buyback tariff the same as your opportunity to ...

Chief Executive, Jersey Electricity:

Yes, it is a market related cost.

The Deputy of St. Martin:

Do you not feel that there is a security issue here though that we could leverage when it comes to ...

Chief Executive, Jersey Electricity:

There may be a security benefit but you have to remember that these are renewables and when the sun does not shine it is not a secure form of generation, when the wind does not blow, backup generation is required.

Deputy J.H. Young:

No, but bear in mind you have lost one interconnector, for example, is it not an argument ... technology is there and it is soundly based in terms of households being able to make those investments, is that not an argument to encourage greater micro generation and would not the availability of tariff structures that encourage that, support the achievement of these energy targets?

Chief Executive, Jersey Electricity:

I think it would help us achieve those energy targets but because we are already importing very low carbon power, I mean the carbon intensity of imported power is around 5 to 10 grams of CO₂ per kilowatt hour. In the U.K. by the way, electricity that is distributed in the U.K. is about 400 or 500 grams of CO₂ per kilowatt hour, so our electricity is very, very low carbon already. So what you are saving against importing by generating from a micro renewable facility is 5 grams of CO₂ per kilowatt hour.

Deputy J.H. Young:

So from a carbon position it is not the figure ...

Chief Executive, Jersey Electricity:

Unless you are displacing other fuels. If you are displacing oil and gas then it means that the Island does not need to burn fossil fuels and you could be saving 400, 500, 600 grams of CO₂ per kilowatt hour.

Deputy J.H. Young:

Can I suggest it is a selective policy?

Chief Executive, Jersey Electricity:

Well, I think that ... I mean I do not want you to misunderstand me, Chairman, on this. We are very supportive of micro-renewables. We would like to incentivise the market. We have a services business that installs these systems. We just installed the largest P.V. (photovoltaic) array in the Channel Islands up at the Powerhouse. We are looking at alternative sites now. So we are very, very interested in renewables, micro renewables and large scale renewables for that matter. The issue is one of who pays because in some cases, not all, they are not economically viable on a standalone basis. So they come at a cost and then you say: "Well, hang on a minute, who pays?" Is it Government, do our other customers pay, should you introduce a carbon tax, should you put an extra premium on road fuel duty in order to generate some income, which you can then channel into these investments? There are different ways of creating funding streams for this. My issue is, well, hang on, we do not think it is appropriate that our Jersey Electricity customers pay, because why should they be penalised? They are already consuming low carbon energy. If anybody should be penalised, it is the consumers of oil and gas.

Deputy J.H. Young:

Do you not see a place for dialogue with Government on this? It goes back to this question where you said Government is better placed to make value judgments. You used the example of the social, and I agree with you, but I am not yet convinced, listening to you speak, that a hands-off approach is going to encourage the achievement of these sort of goals. Who knows what the situation in 2050 will be with security of supply, for example. Can you guarantee that nothing will happen in the next 30-odd years, which will mean that the source of power you get over the line from France is all going to be tickety-boo?

Chief Executive, Jersey Electricity:

Let me just deal with the security of supply point; I think that is quite important. We have a power station at La Collette which is more than capable of fulfilling the entire Island's requirement. We

have, what, 225 megawatts of capacity and our peak winter demand at the moment is about 160 megawatts. So, we are going to need that on-Island infrastructure, dependable on-Island generation infrastructure, for all these wind turbines and P.V. arrays anyway, for the days when the sun does not shine and the wind does not blow. If people want to invest a lot of money in solar P.V. and wind turbines, that is great, we would support that, we would provide a buy-back tariff, we would encourage that. In fact, we have got a services business who can come and do it for you. But it will not stop us from the need to invest in our own infrastructure and also our own generation capacity, because we have got to make sure that we can cater for the days when the renewable energy is not there.

Can I just raise one other point on security of supply, and that is this. We have presently got one cable between Jersey and France. We have committed to another cable which will be installed in 2015, that is a 100 megawatt cable. We are also committing, at a time that is to be determined, but probably within 2 to 3 years, to an additional cable to replace the cable that failed last year. So, within 2 to 3 years we will have 3 interconnectors between Jersey and France and in all 3 of those, the capacity will be shared with Guernsey and our Island, our customers, and customers of Guernsey as well, will benefit from that shared infrastructure and those shared assets. Security supply-wise, we are pretty covered. We have got access to low carbon energy from France. That energy is clean. I think there is, to be fair, an argument for some level of diversity of generation in the Island. I accept that, albeit it is from unreliable sources, if the wind does not blow, for example. We would like to encourage it; we think it is the right thing for the Island to be progressing. By the way, some of this technology is not that far from being grid parity. We have a ...

Deputy J.H. Young:

Sorry, what does that mean?

Chief Executive, Jersey Electricity:

That basically means competitively priced, if you like, compared with imported power. There has been a collapse in the prices of solar P.V. arrays, largely because the support mechanisms that you describe in Europe and the U.K. and Spain and Italy have been withdrawn by those governments, so there is excess production capacity of these technologies. Most of the PV panels are made in Asia, in China. As a result, there is an excess supply, so prices have come down, energy prices are going up, and at some point we will see a more serious flip to on-Island micro generation.

The Deputy of St. Martin:

Just getting back to your feed-in tariffs. I accept the principle that your buyback tariff is similar to what you could buy it for in France and I know there are physical problems with the electrons

flowing back into the system in the opposite direction to normal, but is it not possible for people to use their own micro energy that they produce at home themselves?

Chief Executive, Jersey Electricity:

Absolutely, and that is a ...

The Deputy of St. Martin:

In which case, you would avoid having to pay and they would get a better return on the investment.

Chief Executive, Jersey Electricity:

That is absolutely spot on. In fact, I am glad you raised that. The buyback tariff that we offer is effectively based on the opportunity cost; it means we do not need to import from France, so we will give you what we would have paid for power from France, is basically the way it works. But you are quite right; if the micro generation asset is sized in a way that is in line with the property's consumption it is serving, actually the benefits are much higher because it means, which you quite rightly say, it is displacing the need for that customer to buy any power from us at all. So, as long as the solar P.V. array is sized to match their demand, they are effectively saving the retail price and not the wholesale price in Europe, which is a higher price, and it is easier to make the economics work.

The Deputy of St. Martin:

I accept that they will probably still need to be connected to your network and would expect to possibly pay more for their power than they did use, I do not know.

Chief Executive, Jersey Electricity:

Well, no, they would pay the going rate, basically.

The Deputy of St. Martin:

Is there a practical difficulty with people consuming the power that they generate themselves at home?

Chief Executive, Jersey Electricity:

No, not really.

The Deputy of St. Martin:

No?

Chief Executive, Jersey Electricity:

If people want to do that, we can do it. We have got a business that does that work and we can connect it up to the grid so that any days when the sun does not shine, they can take power from the grid. We would be very happy to do that.

Brand Manager, Jersey Electricity:

There is still the expectation from those people that when the sun does not shine that they have enough capacity to continue with their business, so we still have to manage and maintain the infrastructure because it ... as and when.

The Deputy of St. Martin:

Yes, I fully accept that, yes.

Chief Executive, Jersey Electricity:

You are quite right. That means that if they get the sizing of the facility right, it is easier to make the economics work.

Brand Manager, Jersey Electricity:

We have an installation in Jersey. Charlie Gallichan has, I think, a 15 kilowatt array. I think there are 64 panels, and he takes all of his 15 kilowatts, all of the time when the sun shines. So he maximises his P.V. array purely for his business.

The Deputy of St. Martin:

Just as a straight off the top of my head question, do you know how much of a P.V. array one needs for an average house on a normal day? Is it a set-up that would cover the size of the floor space in this room, or is it ...

Brand Manager, Jersey Electricity:

I think the idea behind a P.V. is it looks after your base load, so your things on standby, your fridges, your freezers, and all those sorts of things, so I think most homes would be happy with 1.5 to 3 kilowatts which in terms of panels, you might be looking at 12, 18 panels. Again, it depends on the size of the roof, the orientation of the roof. I think what we see in the U.K. is, with the government funding, people effectively sell their roof space because they can generate income. Over here, certainly the roofs are big enough to give people that base load, because what they do not want to do is over-generate. It is about getting that base load covered.

The Connétable of St. John:

Can I get back to the interconnector with France? What is the life of the cable? The one that has gone now, was it 25 years?

Chief Executive, Jersey Electricity:

Twenty-eight years.

The Connétable of St. John:

Twenty-eight years? So, on average, it is between 25 and 30 years. You are going to be putting 2 cables in, you were talking about?

Chief Executive, Jersey Electricity:

Yes.

The Connétable of St. John:

Approximately a year apart or thereabouts, at a cost of what, for 2 cables?

Chief Executive, Jersey Electricity:

Well, can I just ... I cannot give you a definitive answer on that, Constable. What I can say is that the Normandy 3 project is expected to cost around £70 million. What I can say is that the Normandy 1 project will be materially less than that because it is effectively a like-for-like replacement of the previous asset. But I think it is important to remember that we have very recently struck an agreement with Guernsey Electricity to co-invest in these cables and that makes the deployment of capital far more efficient. It makes it much more resilient because we have effectively got 3 cables between Jersey and France and we are sharing the capacity of each of those cables with Guernsey, and it is also efficient in terms of getting the best bang for our buck, if I can put it like that.

The Connétable of St. John:

So therefore, with a ball-park figure of, shall we say, £120 million (because one is going to cost less than the other, payback time), but in 25 years' time when you will be looking to redo the programme yet again, by that time, hopefully alternative energy will have come along and be successful, whether it is wave or wind - less likely to be wind but possibly wave - will there be any likelihood, you may not be able to answer this, of being able to sell any excess power back over to the French?

[16:30]

Chief Executive, Jersey Electricity:

Quite possibly, yes. Yes, absolutely. We have done quite a bit of work on large-scale renewables in Jersey waters and we think there is anything up from 1 to 4 gigawatts of capacity, so 1,000 to 4,000 megawatts of capacity. Bear in mind that the peak capacity of Jersey is only 160; that is an awful lot of energy that can be extracted from Jersey's water and wind resource.

Deputy J.H. Young:

You have done your own feasibility studies of yield, have you?

Chief Executive, Jersey Electricity:

We have done a lot of work on this in the last 2 to 3 years, yes.

Deputy J.H. Young:

Has that been made available to our Renewable Energy Commission? Have you worked together on this?

Chief Executive, Jersey Electricity:

No, not fully, but we have been in discussion with the relevant officers and we have had some discussions with Dan Murphy and his team, and the Renewable Energy Commission. I think it is probably fair to say that their initial focus was more on tidal energy rather than off-shore wind. Our view is that, while tidal is an opportunity, it is a much longer-term opportunity. I think we are probably 2 decades away from being able to deploy assets that are economically viable. Off-shore wind is lower risk and could be viable much more quickly, albeit at the moment it does require subsidy in order to make the economics work, but we do think there is a big opportunity there and we are very willing to engage with the States on that, around how we might work together.

Deputy J.H. Young:

I was puzzled with your submission on that. On the one hand you seemed to be saying that the uptake of large-scale renewables would not happen unless there were some financial incentives. Then, towards the end of the proposal, you were saying you put yourself forward as a partner with the States of Jersey to look at opportunities for large-scale renewables. I saw a contradiction there.

Chief Executive, Jersey Electricity:

Yes, it is very fair point. I think with all these technologies, with energy costs generally, over time they are only going in one direction, unfortunately. Yes, there is some up and down volatility but over time, they are going up. The cost of the technology is coming down and is being de-risked.

So, energy costs are going up, the cost of the technology is coming down, and at some point these projects will become economically viable, we think; talking about off-shore wind, for example.

Deputy J.H. Young:

So where should Jersey be on that spectrum, in your view? Because obviously, this is a strategy. It is not a business plan, it is a direction that the Minister is saying the Island should go in. It is not clear whether we should be proactive or passive.

Chief Executive, Jersey Electricity:

No, I think we should be proactive. I think we should be together on this ... I think the public and private sector need to work very closely together and I think we should be aggressively trying to create opportunities for large-scale renewables within Channel Island waters.

Deputy J.H. Young:

What does that mean? What does Government need to do to make that a reality, that vision you have just put on the table there?

Chief Executive, Jersey Electricity:

I think the Island or the States of Jersey need to engage with ourselves, and possibly with others as well, and look at how we should work together across the public and private sector. I think we should probably look at how we might create a funding stream to explore the opportunity, and maybe that could be in the form of some sort of co-investment between Jersey Electricity and the States of Jersey, so we have a properly resourced, properly focused team, looking in more detail at the size of the opportunity and what is involved with making the Island attractive for inward investment. I think there is a piece of work around how we might secure financial support from outside the Island. One of the major insights from the work that we have done so far is that there may be an opportunity for Jersey to secure financial support from within the E.U. from countries that are struggling to meet their renewable targets.

The Deputy of St. Martin:

Is there a tie-up with regional government in France, here?

Chief Executive, Jersey Electricity:

Potentially. Potentially there could be a tie-up with France. I mean, probably it would have to involve the national government in France, but it is not just France. There are other jurisdictions, there are other countries in Europe that are struggling to meet their legally binding renewable targets, and if they believe that by carving out some funding for a project which will help them

deliver those targets more cheaply than the alternatives they have got available to them, that could be very attractive to them.

The Deputy of St. Martin:

But physically, a wind farm would need to be plugged into the French system rather than into our local system for the large ...

Chief Executive, Jersey Electricity:

Yes, I mean, I think if you are going to enjoy the export opportunity ... and obviously if it was France or any other country they would want to know that that energy is going to make its way into the European grid. A portion of it could be siphoned off to support the Island, but probably you would have to cater for the majority of the energy going straight into the French network. There is an opportunity there and I am not in any way saying it would be easy. I think it could be incredibly challenging to secure that, particularly in the current environment, because obviously most of the world is in recession; certainly most of Europe is deep in recession and struggling. So, I think it is a challenging argument to construct, but I do think there is a window of opportunity over the next 10 years to do this. That window of opportunity could melt away beyond that timeframe, because I think other technologies could emerge that could create more viable opportunities elsewhere that could negate the opportunity for Jersey.

Deputy J.H. Young:

Sorry, when was that timescale again?

Chief Executive, Jersey Electricity:

Well, sometime in the next 10 years, basically.

Deputy J.H. Young:

That is the window?

Chief Executive, Jersey Electricity:

Yes, these European nations have got legally binding targets that will crystallise in 2020 so it does require some focus for a public-private partnership of some description, in order to crystallise the opportunity, but I think it is worth going for.

Deputy J.H. Young:

Do you think there is opportunity there, economic opportunities through spin-off technology and so on, with a project of that nature?

Chief Executive, Jersey Electricity:

Yes, I think you would have seen in our submission that there is an economic argument for this; there is a security of supply argument; I think there is an income generation opportunity, it could generate £30 million to £40 million-worth of income for the States; 500 jobs, I think we estimated. Obviously, if we can enjoy some of the energy coming off this development, then that is good for security of supply, albeit of an intermittent nature.

Deputy J.H. Young:

That is based on your figures on wind power?

Chief Executive, Jersey Electricity:

Yes, off-shore wind.

Deputy J.H. Young:

Not on tidal?

Chief Executive, Jersey Electricity:

No.

Deputy J.H. Young:

You spoke about these volumes of energy numbers, which are gigawatt hours, or something. If you were to convert that into a harvestable energy take that could be available, say, in a year, and how that relates to our current consumption, that would help me get a better handle on this.

Chief Executive, Jersey Electricity:

It is quite hard to answer that question because the reality is, there is tonnes of energy out there. The question is, how do you access it economically and what sort of financial support can you get for it? The more financial support, the more energy you can access economically with that support. I think that 1 to 4 gigawatts of generating capacity is something between 200 and 1,000 turbines. I am not suggesting that we have or develop a wind farm with 1,000 turbines; I think that is disproportionately large, but you may be able to create a business case around a wind farm of somewhere between 200, 300, maybe 400 megawatts of generating capacity.

The Deputy of St. Martin:

I was just going to go back to a quite general question. You mentioned subsidies and access to money. How is the subsidy situation in the U.K. and Europe developing? I do not want a big, long, protracted answer, but generally speaking, I presume ...

Chief Executive, Jersey Electricity:

Sorry if my answers are very long.

The Deputy of St. Martin:

Am I correct in assuming that, whether it is domestic or commercial or what have you, there is less money being pumped in in subsidies because governments just cannot afford to do it anymore?

Chief Executive, Jersey Electricity:

I think there is a realisation in the bigger economies that these are costly projects and there is a lot of other pressure on that capital, not least if you look at, if you like, conventional energy infrastructure. The U.K. and Europe are massively underinvested in generating capacity and transmission distribution capacity. In the U.K. alone they need to invest £200 billion into their own network and their own generation fleet in the next 10 years. In Europe it is €1 trillion in the next 10 years. It is eye-watering amounts of investment.

The Deputy of St. Martin:

They are not going to manage to do it, are they?

Chief Executive, Jersey Electricity:

They are going to struggle, and the U.K. and Europe have got some real challenges ahead. I think compared with them, yes, we have a big capital programme but I think, on balance, we are in pretty good shape here.

The Connétable of St. John:

Do you think shale gas is going affect your balance sheet, at the end of the day?

The Deputy of St. Martin:

You are not supposed to use the word "gas" in present company.

Chief Executive, Jersey Electricity:

Is it going to affect our balance sheet?

The Connétable of St. John:

Because if the U.K., and you say they are underinvested in plant, and in Europe as well, and what we are hearing now, coming out in certain areas, if shale is going to be the way forward and they are going to be producing electricity by, I presume, gas, do you think it will start hitting where you will be in 10 years' time?

Chief Executive, Jersey Electricity:

No, and the reason why I can say that confidently is because although we import the majority of our power, although the majority of that is generated from the nuclear fleet in France, there are other generation technologies that connect into that grid. The great thing about electricity is that it is a “carrier” technology, so when the next new wave of technology comes in, you just plug it in and we can take it. In natural gas markets at the moment, wholesale prices in Europe are relatively low, but we don’t know how long that will continue. Jersey Electricity is already enjoying the benefit of that through its network because it means that cheaper plant in Europe are being dispatched and we are enjoying that with lower EDF costs and lower tariffs. That is despite the fact that the majority of the electrons come from the nuclear fleet. Typically the gas plants are generally operating at the margin, so they are the price-setters, typically, in Europe. There has been a lot of development of shale gas in the United States and obviously they are now looking at exporting a lot of that gas. If any of that gas is flowing into Europe, and I think there is a question mark as to whether it is getting to Europe, but if it gets here, we will enjoy the benefits of that anyway, through our own network.

The Connétable of St. John:

Do you think it will extend beyond 20 years?

Chief Executive, Jersey Electricity:

I beg your pardon?

The Connétable of St. John:

Do you think that would extend to your profit line beyond 20 years?

Chief Executive, Jersey Electricity:

I do not quite know what you mean by that.

The Connétable of St. John:

In 20 years down the road, if this is as successful as they say it is likely to be, it might make nuclear, because of the clean-up operations for nuclear, at the end of the day, with the shutdown of these plants ... it might be difficult for you boys to try and keep the bottom line where you want to keep it.

Chief Executive, Jersey Electricity:

No, I am not concerned about that, and I think nuclear is an essential part of the generation mix. 80 per cent of power generation fleet in France is nuclear. The thought of the French not continuing to invest in nuclear is like the Germans not investing in the car industry; it is not going to

happen. They are going to continue to invest in nuclear. Having said that, there are plants which can be economically dispatched in Europe which are gas generated plants. We can enjoy the benefits of that if there is a glut of gas that finds its way into Europe. That will find its way into our costs and therefore our prices anyway.

The Deputy of St. Martin:

Yes, I would like to change the subject if I could, because time is ticking on. We have got the 2 islands; we are linked up by cables and bits and pieces, but we are essentially different. Guernsey is 100 per cent state-owned and regulated; we are not 100 per cent state-owned and not regulated. My first question is, is there any part of the Guernsey system which you look at with envy and say: "I wish we had some of that", or are you quite happy just being non-officially regulated?

Chief Executive, Jersey Electricity:

How do I answer this diplomatically?

The Deputy of St. Martin:

You do not have to be diplomatic. You can be as straightforward as you like.

Deputy J.H. Young:

A single, one word answer, if you like.

Chief Executive, Jersey Electricity:

We think our ownership structure works very well here. We are not price-regulated in Jersey, but we are regulated. We have an Electricity Law; it is primary legislation. We are required to comply with that legislation. We have the Competition Law which prevents us from abusing our dominant position; we have 40 per cent of the market. We are vulnerable to an abuse if we are not careful. We are also a company that has a portion of its shares which are traded on the London Stock Exchange, so 62 per cent of our shares are owned by the States of Jersey, and the remaining free-float 38% is traded on the London Stock Exchange. I think that is good for us, because it puts pressure on us to be efficient in the way we deploy capital. We have private and institutional shareholders who want a sensible and fair return on their investment.

[16:45]

We want customers who want value for money, they want a reliable electricity supply and they want a clean electricity supply, and I think it keeps us sharp using an appropriate level of oversight. By the way, because we are listed, there is an enormous amount of transparency on

our business. I mentioned this annual report; you can work out the entire economics of our business from this. Everything is in here. We have to publish it to a timetable; we cannot wait for 3 years because we do not really like the numbers so we will just kick that into the long grass for a couple of years. We are not allowed to do that; we have to publish our financials and that gives full transparency. I think that gives consumers a huge amount of comfort. It certainly gives them the ability to access that information and I think the oversight structure is proportionate.

The Deputy of St. Martin:

The Chief Executive Officer of the J.C.R.A. (Jersey Competition Regulatory Authority) told us last week that he thinks the Electricity (Jersey) Law 1937 is creaking and out of date. Do you think your customers would have more of a feeling of security if the Electricity Law was updated?

Chief Executive, Jersey Electricity:

I do not know if I am allowed to ask you questions, but did he explain what he meant by: "creaking and out of date", because I think ...

The Deputy of St. Martin:

He did not. He said it at great length, but did tell us on 2 occasions during his ...

Chief Executive, Jersey Electricity:

Because for me, just because something is old, it does not mean it is bad. I would not like to say it is perfect for everything, but it is pretty good. It has been updated 3 times. There is a clause in there that allows the States to intervene and attempt to set prices if it wishes to do so. It has to be mindful of various factors, and in fact it attempted to do that in 2009 and that catalysed a review which was done by the Economic Development Department, into our business, and we were shown to be acting in the best interests of our customers. By the way, there is also a clause in there that allows the States to reacquire the remaining 38 per cent of the stock that is traded on the London Stock Exchange, so if they were unhappy with the direction that Jersey Electricity was going in as a business, they would be in a position to reacquire the business and take it fully into their own hands if they wished to do so.

Deputy J.H. Young:

What is the share capital of the company?

Chief Executive, Jersey Electricity:

In terms of valuation?

Deputy J.H. Young:

Yes, balance sheet.

Chief Executive, Jersey Electricity:

The States of Jersey owns 62 per cent, but of course those are not traded on the London Stock Exchange. It is only the 38 per cent that are traded, but if we ascribe a value to the States' holding, the total equity is worth about £90 million. So, just to give you a sense ... Constable, you raised the cost of these interconnectors. We are investing serious amounts of money in new infrastructure; it is well over half the value of our entire business. That shows the level of commitment that we are making to electricity in this Island.

Deputy J.H. Young:

I think I found the note on our draft. I think there are copious references in the law to the Electricity Commissioners in England, we were told, that have not existed since 1953. Is that correct?

Chief Executive, Jersey Electricity:

Yes, but they have effectively been renamed. So, it is not ... yes, there is some tidying up that can be done ...

Deputy J.H. Young:

So there is a bit of tidying up?

Chief Executive, Jersey Electricity:

But I think the principles of it work pretty well.

Deputy J.H. Young:

Because looking at the power of the state, and I think, if I am right, the Electricity (Jersey) Law 1937, Article 22, the power of the state ... this is in connection with tariffs which you have just highlighted. On my first reading, looking at the list of the factors that the States are allowed to take into account, they are all financial indicators. Would you agree with that? They are all accounting or financial criteria.

Chief Executive, Jersey Electricity:

I am sorry, Chairman, I have not got it in front of me, but I think there are some broader requirements.

Panel Adviser:

There is a catch-all provision that says there are other things that can be taken into ...

Chief Executive, Jersey Electricity:

I, of course, should know this law off by heart, but unfortunately I do not. Have you got it with you?

Brand Manager, Jersey Electricity:

No, I have not. No, I have got it here.

Chief Executive, Jersey Electricity:

I beg your pardon; I have got it here. Clause 22, is it not?

Deputy J.H. Young:

Yes.

Chief Executive, Jersey Electricity:

Yes, so ... yes: "In determining the tariffs, the States shall have regard to the following or any other relevant matters: the present needs of the company and future expansion of services by the company." So, if there was a requirement ...

Deputy J.H. Young:

Let us say for the sake of argument, you have obviously made your position very clear about regulation and not wanting to see a level of regulation which is, to use your words "not proportionate". You feel that the current level, if you like, is okay. But would that law, for example, provide a structure if the States wished to look at some of these tariff structures to provide incentives, encouragements and so on which would involve, for example, cross-subsidisation between consumers? Would your view, would that framework, be right for that regulation to be done? Excepting the fact that you have made it quite clear you do not want regulation.

Chief Executive, Jersey Electricity:

I just do not think it is necessary. I think that, in my view, if something is not broken, why try to fix it? If somebody wants to do something, why do they not just come and ask us? If somebody wants to set up a new generator and wants a connection, talk to us. We will happily connect them.

Deputy J.H. Young:

So what you are really saying is that ...

Chief Executive, Jersey Electricity:

So why use primary legislation? Why think that somehow we do not want to do it, just because it is not provided for under the Law ...

Deputy J.H. Young:

Well, I got the tone. You are obviously highly expert, if you do not mind me saying so, and I am looking at this at face value, having read your submission. The impression is that you want a very light ... your company favours a very light touch, a proportionate approach to regulation.

Chief Executive, Jersey Electricity:

I think my concern with regulation, and I have seen it in plenty of other jurisdictions, is that it can be very, very damaging to services.

Deputy J.H. Young:

Could you explain that a bit more? What sort of things does it affect?

Chief Executive, Jersey Electricity:

This is why I think we need to be very clear on what we are trying to achieve with regulation. What is the failing, what is the market failing? If there is a failing, let us attempt to fix the failing. Let us not just say: "Oh, the U.K. are doing something, let us have a bit of that, even though the system we have currently got works pretty well." As I said right at the start, pricing is pretty good, reliability is pretty good, and it is a clean supply, and we are investing a significant amount in infrastructure. One of the reasons why the U.K. are in such a mess at the moment is because the regulatory and competitive environment there is not giving commercial businesses confidence to invest and that is why the network is massively underinvested, and that is why there is a real risk they could have a lights-out situation. I think if the States were minded to regulate in a more aggressive way, I think that would create so much uncertainty that it would raise significant worries for us as a business around our investments, because why would you invest in infrastructure unless you were confident you could earn a sensible and fair return from that?

Deputy J.H. Young:

So that is a major strategic issue from your point of view, keeping investor confidence, to encourage these type of investments in long-term renewables and so on?

Chief Executive, Jersey Electricity:

Our interconnectors are by far the most important assets that we have as a business. We have got one on the way and there is another one of them to follow. We need to get 3 interconnectors in, 3 connections in, between Jersey and France. We want to be able to invest in this; what we do not want is to be "beaten over the head" with regulation trying to solve a problem that does not exist.

The Deputy of St. Martin:

For example, obviously, you are in a monopoly situation. Condor, which is a peculiar analogy, but they have a service level agreement, so you would maintain that at the moment your service level agreement that is hanging over you like a Sword of Damocles is the possibility of the States buying back that shareholding and regulating you properly? I do not want to use the word “stick” but where do you see the threat from Government? “Threat” from Government is probably the wrong phrase, but you know where I am coming from. How are we holding you to account?

Chief Executive, Jersey Electricity:

The Government do have significant powers, they can supervise us. They have supervised us under this Law. In 2009 they did a review of our business under article 22. We were shown to be acting in the best interests of the consumer. We had a different review last year. It was not a 6(4) request by the J.C.R.A., it was a market study, but they could quite happily have done a 6(4) request; on the approval of the Minister for Economic Development they would have come in and investigated. They did not find anything that gave them particular worries; our tariffs are competitive; cheaper than Guernsey, cheaper than the Isle of Man, cheaper than the European average, cheaper than Ireland, and we are investing like crazy in new infrastructure. So, our view is, if it is not broken, do not try and fix it. If we want to have a discussion about these broader issues, if we want to have a discussion about feed-in tariffs, if we want to have a discussion about block tariffs, talk to us.

Deputy J.H. Young:

And the frame ... sorry, I think the Constable wants to ...

Chief Executive, Jersey Electricity:

Talk to us, do not draft some legislation without ... do you know what I mean? Because it is not necessary. If you ...

Deputy J.H. Young:

All right, you have been very clear on that, thank you. Constable, do you want to get in ...

The Connétable of St. John:

Thank you. I just want to go back a touch. You put a value of £90 million on your company.

Chief Executive, Jersey Electricity:

Yes.

The Connétable of St. John:

Given you have got one undersea connector, which is operational, plus feeding in with Guernsey, plus you have got a power station and an awful lot of property across the Island, surely your infrastructure in the Island should be valued at considerably more than £90 million in total?

Chief Executive, Jersey Electricity:

It is.

The Connétable of St. John:

Because you ...

Chief Executive, Jersey Electricity:

It is. The book value of our assets is much higher than that. It is much higher than that market value. The £90m is just the value of the equity; that is the traded equity on the London Stock Exchange. By the way, we are also going into debt to finance these investments, as well.

The Connétable of St. John:

The other couple of things; you have a number of satellite companies. You mentioned one or 2 of the ...

Chief Executive, Jersey Electricity:

Subsidiaries, yes.

The Connétable of St. John:

Are those shown in your ...

Chief Executive, Jersey Electricity:

Yes, they are, yes.

The Connétable of St. John:

In detail?

Chief Executive, Jersey Electricity:

Yes. You have got full line of sight to the economics of all the subsidiaries, and in fact ... well, the subsidiaries and the business units and we are required to report on them in a separated way.

Deputy J.H. Young:

Stephen, one more.

The Deputy of St. Martin:

I just want to use the dreaded word “competition”. If somebody comes along with a tidal scheme or wind power scheme and they decide that they just want to stay completely outside of the J.E.C. and States of Jersey and what have you, but they want to do a deal with us to rent part of the seabed or something, is that an issue to you?

Chief Executive, Jersey Electricity:

No.

The Deputy of St. Martin:

You do not worry about competition?

Chief Executive, Jersey Electricity:

No, well, competition ... sorry, I thought you were asking would we be happy to connect them into our network.

The Deputy of St. Martin:

Yes.

Chief Executive, Jersey Electricity:

Of course. Of course, but with the proviso that our customers do not have to fund or subsidise other commercial operators. For us, the customer is king, and I want to make sure that our service is as competitive as it can possibly be, and it goes back to the discussion right at the start of this session, which is the litmus test is: “Do customers want this? Are they prepared to pay for it?”

The Deputy of St. Martin:

My final question ...

Chief Executive, Jersey Electricity:

If I can put a tick in the box on those 2, then I am a lot more comfortable.

The Deputy of St. Martin:

My final question would be then, you do not have any issue particularly with outside companies using your infrastructure to distribute electricity?

Chief Executive, Jersey Electricity:

Well, no, I did not mean that. I think we would be happy to connect them and to procure the power off them. But what I would be unhappy about doing is constructing some feed-in tariff to support

some cut-throat third party venture capitalist when my customers end up covering the cost of that and paying a premium for doing so, particularly when we have got lower cost alternatives that are already clean and are already much more reliable than intermittent wind. But I do not want you to misunderstand me. I am slightly worried that I might have given the impression we are anti-renewables. We are not anti-renewables at all; we want to develop renewables, we want to partner with the States, we think there is an opportunity there, but we have got to think smart about how we fund it in a way that does not disadvantage our customer base.

Deputy J.H. Young:

We are coming up to time. I have allowed the session to run to 1 and a half hours. I want to ask one more question and then I will pass on to Roger, our adviser, to clear up some issues. You have spoken quite a bit about jointly working and how we have got to co-operate, but in your submission you said you did not have the confidence, or at least you expressed concern about this organisational framework that is being proposed. Do you want to comment on that?

Chief Executive, Jersey Electricity:

This is the energy partnership, is it not?

Deputy J.H. Young:

Yes.

[17:00]

Chief Executive, Jersey Electricity:

Let me see if I can find some of my notes here. Where am I on this? I think it is important that a number of interested parties have the ability to contribute to the debate on energy. I think that is very important, and anybody and everybody should be doing that, and I would encourage them to do so, whether it is a private individual who has got a private dwelling in St. Martin or a big commercial business. That is fine. I just have a slight reservation about the structure of the energy partnership and how such a large, potentially a very large, group is managed, how we avoid it turning into a talking shop, how we keep it focused, what sort of expertise in that group, the size of it, the remit, the composition, the appointment, the management, the powers. There is a lot of work that needs to be done in thinking about how that group is structured and I think that my experience on the Island, again, without being unfair on anybody in an individual sense, is, if you get big groups like that together, there is a very real risk that we will not be able to advance on the really important decisions that need making. In my view, I think we should probably look to a smaller group that is comprised of individuals that have more experience and expertise within the

sector, but also provide other mechanisms for broader interest groups to contribute. As I said right at the start, everybody needs to engage.

The Deputy of St. Martin:

I am smiling, but I think the message I am getting is: "Less Government involvement, more commercial focus".

Chief Executive, Jersey Electricity:

I think that is right.

Deputy J.H. Young:

Yes, that is what I am hearing.

The Deputy of St. Martin:

You put it very diplomatically, I might say.

Chief Executive, Jersey Electricity:

If something is broken, fine, let us talk about it and get involved, but I think that it is very important ...

Deputy J.H. Young:

To keep the Government out?

Chief Executive, Jersey Electricity:

Well, I think it is very important ... it is not quite "keep them out of it", but I think there needs to be close co-operation between the private sector and public sector; I think there needs to be a clear remit; it needs to be properly funded; it needs to be consequential, rather than a general discussion ... do you know what I mean?

Deputy J.H. Young:

You are saying further work needs to be done ...

Chief Executive, Jersey Electricity:

I think so; on how that is done.

Deputy J.H. Young:

Thank you for that. Roger, would you like to come in, please?

Panel Adviser:

Thanks, yes. I think it is, by common consent, a very ambitious energy plan. The panel has raised various possible quality instruments to try and achieve its very ambitious targets, and on a lot of them you have answered very reasonably that they would involve extra costs and somebody would have to pay. You also said very clearly at the beginning that you were not in a position to make value judgments about whether one group of consumers ought to cross-subsidise another. Does that not all point towards the need for some kind of body to look at these things systematically, in a non-commercial way, and set a framework within which you can then operate as a commercial business, where you do not have to make the value judgments but where you work within a system which embodies the value judgments and the political judgments that are needed to achieve these targets?

Chief Executive, Jersey Electricity:

Yes, I am not anti- the concept of that. I think the question is more, how is it done in a way that focuses energy on the right things in the right way? I think that is quite a challenge, doing that.

Panel Adviser:

Yes, thanks.

Chief Executive, Jersey Electricity:

Yes.

Panel Adviser:

Thank you. Finally, one little factual one. You mentioned your estimate of 1 to 4 gigawatts of generating capacity for renewables. Can you give us a rough idea of what that would mean in terms of gigawatt hours per year actual deliverable, harvestable energy?

Chief Executive, Jersey Electricity:

I probably can, but I do not know if I have it at my fingertips. From memory, I think it was around 7 times the consumption. Between 5 and 7 times the consumption of our customers in Jersey, and that is 650 million units. So it is around 6 or 7 times that.

Panel Adviser:

Great, thanks. That is mostly for wind, is it?

Chief Executive, Jersey Electricity:

Yes, that is the technology that we think is much more viable. One of the reasons why I think there is a sense of urgency, without exciting people too much about it, is that we have these 2020

targets, and there is every possibility that new technology will be developed, such as floating off-shore wind, which is likely to neutralise these opportunities, because if developers can develop a technology for floating wind, they can access all parts of the North Sea, where there are very, very strong wind speeds, and they are likely to snuff out some of these opportunities that the likes of Jersey could enjoy. So, I think there is enough here for us to construct a project that gives some focus to this. As I say, there is a lot of work that needs to be done and there are some big challenges. One of those is securing the right support regime from the E.U.

Deputy J.H. Young:

You have obviously done a lot of work on wind power to reach that level of confidence. Is there an argument that the French are doing it anyway and that we need to be in there? Is that what you are saying? They have announced that they are going to be doing it in their own waters, are they not?

Chief Executive, Jersey Electricity:

Yes, I think that it is a slightly simplistic view, really, but although this is intermittent power, it will be great for Jersey to enjoy the fruits of some of its natural resource here. Jersey imports 96 per cent, 97 per cent of its total energy requirement; the balance of our energy need is produced at the Energy from Waste plant, and energy prices are only going to go in one direction over the long term, and it would be great if we had access to an income stream from energy and, by the way, a euro-denominated income stream. That is quite useful for us, because of course we are buying a lot of power from the French and it is all denominated in euros so we are exposed to the power price risk, but also the exchange rate risk. So, if we can generate an income stream from export into France, that potentially strips away a lot of the risk associated with that, the exchange rate risk.

Deputy J.H. Young:

Thank you. I think, obviously, it has been a very, very comprehensive evidence session. I think we could go on, clearly, for a lot longer, but I am going to close that down now, unless my colleagues have other matters they ...

Chief Executive, Jersey Electricity:

Chairman, can I just raise one thing which I did want to raise, very briefly, if I may? Just a point of clarification on feed-in tariffs, we talked about how it would come at a cost for most technologies, not all. One of the things that concerns us is that if our other customers bear the cost of that, typically what we would find is that it would result in, if you like, the poor in a sense subsidising the rich, because the people that are doing these sorts of developments who can afford the sort of cash involved in investing in P.V. or investing in micro wind will be those that might be based in the

country, have a country house, nice resource, they have got the funding to do that, and one of the dilemmas that one might have is, why should the disadvantaged or people who are less able to afford that, why should they effectively end up subsidising those that are wealthier, and that is one of the dilemmas, I think we have got to try and resolve.

The Deputy of St. Martin:

Is that not an issue for Government rather than for commercial business?

Chief Executive, Jersey Electricity:

Maybe, yes. Well, it is really, because our buyback tariff is our opportunity cost at the moment. The reason why it is so low is because we have got access to cheap power from France.

Deputy J.H. Young:

Thank you for clarifying that. Do have a question, Roger?

Panel Adviser:

Sorry. Surely that depends on the whole package of tariffs where, for example, a rising block tariff could deal with the social equity effects of the feed-in tariff ...

Chief Executive, Jersey Electricity:

Potentially.

Panel Adviser:

... and is that not again an argument for a holistic look at the whole package of tariffs, rather than picking off little things one by one?

Chief Executive, Jersey Electricity:

I think possibly, yes. I think that one of my concerns is introducing a lot of complexity here, that will come at a cost, and there is quite a lot of modelling required to do a ... if you said to me today: "I want a rising block tariff", I am probably going to have to go and hire somebody. There is a cost associated with doing all these things and at the end of the day there is only one group of people that pays for that, and that is customers, so we have got to be sensible about that. The other thing I would say is that the focus, quite rightly - and I understand why - has been on electricity. I think that if you look at where carbon is going to be emitted in Jersey, it is not from electricity use, and that is the primary focus of the energy plan; it is from the burning of fossil fuels.

Deputy J.H. Young:

I understand that.

Chief Executive, Jersey Electricity:

I think it is quite important that we do not construct mechanisms that penalise people from using electricity and effectively drive people towards fossil fuels which could actually increase carbon emissions in the Island. That would be damaging.

Deputy J.H. Young:

So any regulation would have to be cross-sector? That is what you are saying, I think.

Chief Executive, Jersey Electricity:

I think that you have got to look at the energy market overall.

Deputy J.H. Young:

Yes, energy regulation, rather than ...

Chief Executive, Jersey Electricity:

I know you are doing this, of course; you are talking to the oil companies and the gas company. I understand why the focus is on electricity here, but I think we have always got to keep coming back to what are we trying to achieve here. We are trying to achieve an 80 per cent reduction in carbon emissions. The vast majority of carbon emissions on this Island are produced from the burning of fossil fuels, a good chunk from road fuels, and so the way we are going to achieve these targets, is by de-carbonising transportation, by decarbonising the other aspects of the energy network.

Deputy J.H. Young:

Thank you for clearing that up. As I say, I am sure we could go on for a lot longer, but I think we will take stock of what you have got, and I think if there is material we want to come back on, we may need to ask you to come back to check those things out, because I think, obviously, the ...

Chief Executive, Jersey Electricity:

Of course.

Brand Manager, Jersey Electricity:

We did not talk about road transport.

Deputy J.H. Young:

I beg your pardon?

Brand Manager, Jersey Electricity:

We did not talk about road transport, as well, which is a big issue.

Deputy J.H. Young:

Yes.

The Deputy of St. Martin:

We did not get anywhere near electric vehicles.

Deputy J.H. Young:

No, I know. So, I think if we can just take stock of that, because I think we have got a lot of material now. I will close that session. Thank you for that.

[17:11]