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**8 The Connétable of St. Martin of the Minister for the Environment regarding the consideration given to the environmental impact of power stations which supplied energy imported to Jersey in the development of plans to achieve carbon neutrality: (OQ.170/2019)**

What consideration will the Minister give to the environmental impact of the power stations which supply the energy Jersey imports when calculating ways to achieve carbon neutrality, as part of his examination and assessment of this matter?

**Deputy J.H. Young of St. Brelade (The Minister for the Environment):**

A very big question, but a broad answer. As requested, the Council of Ministers will be presenting a carbon neutral plan to this Assembly by the end of this year and the plan will define the scope of environmental emissions, which contribute to the neutrality and the approach to be taken to achieve the extremely ambitious target of carbon neutrality by 2030. Consideration in that plan will be given in relation to the carbon emissions from Jersey electricity imports, as the questioner asked, which are currently from the interconnectors with France. That will be included as part of this work.

[10:45]

**3.8.1 The Connétable of St. Martin:**

How is the risk of a nuclear power station on our doorstep quantified?

**Deputy J.H. Young:**

There are a few points of principle; obviously there is an international convention on emissions associated with electricity generation considered in the country of production, this is the international convention by which our current carbon emissions are assessed and reported on. So, at the moment, obviously, the emissions arising in France are accountable in France. At the moment, 66 per cent of that power from France is nuclear and 34 per cent of hydro and, of course, it is absolutely clear that nuclear power has a carbon footprint of around 50 grams of carbon dioxide per electricity unit compared with gas, 450; coal, 1,050; and so on. So, it does have a footprint, but, of course, that does not take into account the embedded energy in manufacturing the plant and so on. So, it is an extremely complex business and so I think that will form part of the plan to define what carbon neutrality is, what measures we are going to use and, of course, the more broad we make that the tougher the targets are going to have to be. Of course, in energy policy terms, it also raises the question whether in the future we do continue to rely solely on an interconnector with France as a source of imported power, or whether we increase our own renewable energy generation. These are all issues that are arising, are going to have to arise and the outline plan will give the scope, but it will be from then on, obviously, that we have the 10 years to carry through those actions if the Assembly approves that plan. So, it is a complicated business, I am sorry to say.

**3.8.2 Deputy G.P. Southern:**

As part of this plan by the end of the year, will the Minister be setting targets for increasing the use of renewables, rather than just merely low-carbon targets?

**Deputy J.H. Young:**

That is an energy policy question. My personal view is yes, but I think this needs to be part of the plan that the Assembly considers and part of that plan, we already have a States' decision for an energy policy. That policy needs to be reviewed; that will be part of that work. What I can say with

clarity, if you look at the current level of emissions locally, 47 per cent are transport related, so there is no question there is a huge area of work on transport that we have to deal with, 16 per cent are residential and 23 per cent are business and so on. What we are looking for is a plan where all businesses and all individuals change their behaviours, in order to achieve that carbon neutrality. But in the question of how much more local renewable energy, yes, personally I want to see a better take up of solar P.V. (photovoltaic) and solar P.V. on existing dwellings and so on, on roofs and so on, using that capacity. But that requires, in my view, different tariff structures, potentially may require - and this is something I think will cause a reaction but I will say it - a regulated energy market. These are issues that we will have to deal with in selling those policies.

### **3.8.3 Senator S.C. Ferguson:**

Has the Minister yet any estimates of the cost involved in the plan and how much will fall on the individual consumer, including pensioners?

### **Deputy J.H. Young:**

The good news is that the Assembly did recognise that we need to use fiscal measures when they authorised, or instructed, the bringing-forward of that plan and of course those fiscal measures are being addressed as part of the Government Plan and obviously, very shortly, you will be seeing the draft plan and you will see the elements of those costs. What we have also done and I am pleased to say a bid has gone forward for support resources, which I cannot remember off my head, to do this work, because this work is going to cost I think, potentially, at least £150,000, something like that, which I am sorry to say, but those are the facts, which we are going to have to buy in resource to make sure we get this done for 2019 and I did advise the Assembly. The big cost, the numbers range of what the cost of achieving neutrality might be, I think anything up to at least £100 million I have certainly heard, but the plan will have to work out where we draw the line and we will certainly, in my view, need to have systems of incentives and financial support to assist those members of our society that cannot achieve carbon neutrality because their means do not allow them to do so and that requires some assistance with subsidies. That will have to be part of the plan.

### **3.8.4 Connétable M.K. Jackson of St. Brelade:**

Would the Minister agree that, despite all, it is essential that we keep some independent generating capacity within the Island, so that we are covered in the event of cable failures, outages from Cap de la Hague and any other circumstances, so that we are self-sufficient.

### **Deputy J.H. Young:**

Absolutely. The figures are around about 5 to 7 per cent we get of energy already from the waste plant. I do not know what the lifetime of that is, but the electricity provider, Jersey Electricity, do have a generating capacity both in heavy fuel oil and in gas in terms of the gas turbines cut in in 20 minutes, as I understand it, where the heavy oil generators take longer. So, we do have that backup facility, but, of course, the carbon emissions from those are quite significant. I have the numbers here and, sorry, I cannot find them, but there are significant carbon emissions from that local generation. That is why I answered in the question to Deputy Southern that I think renewable energy sources and increasing those is something that is the direction of travel for the future, for our local generation.

### **3.8.5 The Deputy of St. Peter:**

While I am a supporter of electric cars and electric buses, I believe that the manufacture of an electric car, because of the battery component, can use up to 4 times the amount of carbon than a traditional car in the manufacture alone. This is something that we have to live with, but I do think it is something that we ought to make the Island aware of when we are going down this route. Can you please assure that is part of your review process?

**Deputy J.H. Young:**

Yes, it is a real difficult choice this: do we take a narrow view that what we are going to do in our plan is just focus on local emissions and seek to eliminate those, or do we look at embedded emissions that come from elsewhere as a result of our consumption and our activity. That is the choice. Whatever happens, one has to recognise that Jersey's contribution to the worldwide picture is extremely small and so, therefore, personally, I think that is where the priority is and long term we have to rely on external advice, knowledge and experience from elsewhere, on what are the environmental costs of, for example, extraction of mineral ore and so on, rare earths and so on, for battery production and so on. That is why we need expert advice - and I see Senator Ferguson shaking her head - to help us give you that information, to help you make those choices.

**3.8.6 Deputy R.J. Ward:**

Is it not the case that what we should be preparing for is an end to the fossil fuel-based economy that could happen quite rapidly and, therefore, the economic impact of that would be much greater than any concerns we have over preparing for what we decided in this Assembly is a climate change emergency? Therefore, I ask the Minister, is it not a matter of urgency that the development of varied renewables on this Island is the only way to give us any sort of energy independence and the only way really to address the issue of carbon neutrality and climate change on a wider scale?

**Deputy J.H. Young:**

There is a lot in that. I am not sure I am being invited to challenge the worldwide economic system in there, but nonetheless the issues are in energy in this Island; we need energy and so I do not think anybody is advocating an energy-free society. But the issues are we need to have reliability of supply and we need to have low emissions and we need to have reasonable costs within our economy. Those are the elements that would feature in an energy policy. I absolutely agree that the production of local renewable energy is potentially one of those things, which is going to help us and is going to be a major option in the future. As I understand it, issues like I heard this weekend, talks from experts producing potential tidal energy proposals up in Alderney and I learned, in fact, that they are moving towards greater cost-effectiveness. But we will see. But, in the meantime, solar P.V. is definitely clearly an economic provision and that is something we should find ways of encouraging.