The Consultation Document:

If a Policy is to be valid then the assumptions upon which it is based must be sound, both scientifically and economically. Furthermore there should be a realistic impact assessment of the policy.

The assumptions upon which this policy is based appear to be based on a combination of the Kyoto Treaty and the UK Climate Change Policy. It is therefore assumed that the temperature will rise excessively in line with the increase in Carbon Dioxide, the shorthand for which is a low carbon economy. It is also assumed that we are in imminent danger of running out of fossil fuels and that the intention of reducing emissions of carbon, as calculated, by 80% is both attainable and will not affect our standard of living.

Great importance is attached to the fact that the Climate is changing. It has changed for the last several million years and is quite likely to continue changing. The question is whether we need to do something or whether, as previously, we continue to adapt. Given that the science is still in a state of flux, we should adapt.

The 2007 IPCC report is also regarded as the "gold standard" and must be adhered to. This assumes that all the science therein is valid. Subsequent events have shown that there have been significant errors in the science, 1/3 of the references are from grey literature and authors are not all independent. A sizeable number of authors are from activist organisations such as Greenpeace and WWF, some had not even completed their masters degree and some had no papers published prior to their involvement. Contributions were also refused from leading experts in their fields.

> *Consensus means that everyone agrees to say collectively what no one believes individually"-*
>
> Abba Eban

The Terms of Reference of the Review have concentrated on the ability to apply the energy policy and this is, therefore, not the place to have a lengthy discussion relating to the flaws in the underlying assumptions. Perhaps there are a further two or three pertinent facts which would be helpful.

1. Kyoto lapsed on 31 December 2012. The EU and a number of small islands hoping to gain financially from it are the only parties interested in resurrecting it. The major players, USA, China, Russia, Canada and Japan, refused to agree to its extension. Only 37 of 194 nations signed the treaty that replaces the Kyoto Protocol, – and several countries may withdraw their consent. That means the new agreement is legally non-binding and covers only at best 15% of global carbon dioxide emissions.
2. The global temperature has been static for the last 15 years. The climate models designed by researchers at the University of East Anglia and other Universities do not mirror the actual temperature movement and are therefore inadequate for forecasting
3. Carbon footprint is shorthand for carbon dioxide. Carbon dioxide comprises 0.039% of the atmosphere and is essential for plant growth. If the CO2 level falls below 170 ppm then there is insufficient for photosynthesis and life on earth will cease.
4. Rises and falls in the Carbon dioxide level lag temperature by 600 to 800 years.

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Policy Proposals

There are three strands proposed under the policy.

1. Demand Management

Demand Management is the politically correct term for rationing. There are two methods of reducing the carbon footprint by 80%. One is rationing and the other is raising the price so high noone can afford energy.

Rationing can be effected by means of the smart grid which would enable the JEC to switch customers' supplies off centrally. The generating companies in the EU have already suggested that inserting microprocessors into household appliances would enable a selective shutdown of these at the whim of the supply company. The same would apply to the commercial sector. Since it has now proved possible to withdraw the charge from motor vehicles on charge, it is quite feasible that a shortfall in supply in the morning would enable the generating company to drain the batteries of the cars being charged to supply the main demand for households getting breakfast. I attach a copy of a letter which I wrote to the JEP on the topic.

It is questionable that the target of an 80% reduction is actually realistic. A reduction in 80% of emissions would suggest that customers will have to reduce their consumption by something approaching that amount unless they can afford renewables. My electricity consumption is running at about 12,000 units a year. An 80% reduction means that I would have a maximum consumption of 2,165 units a year. This would allow me 6 units a day for cooking, computer, vacuum cleaner, lighting etc. Putting it simply, it is the equivalent of a 2Kw fire being on for 3 hours a day. Similarly my central heating takes 2400 litres of oil a year. An 80% drop in usage means that instead of running the heating 9 hours a day in winter, I will have to cut back to 1.62 hours a day.

2. Energy Security

This appears to envisage utility scale renewable power generation. I do not have the cost figures for JE but I would use the UK figures for a reasonable comparison. I am reliably informed that the wholesale cost in the UK is £50 per Mwh, the subsidies for onshore windmills are paid at £100 per Mwh and the subsidies for offshore windmills are paid at £150 per Mwh.

The paper by Gordon Hughes, attached, concludes that "*meeting the UK Government's target for renewable generation in 2020 will require total wind capacity of 36 GW backed up by 21 GW of open cycle gas plants plus large complementary investments in transmission capacity. Allowing for the shorter life of wind turbines, the investment outlay for this Wind scenario will be about £124 billion. The same electricity demand could be met from 21.5 GW of combined cycle gas plants with a capital cost of £13 billion.*"

He continues, "*under the most favourable assumptions for wind power, the Wind scenario will reduce emissions of CO2 relative to the Gas scenario by 21 million metric tons in 2020 - 2.6% of the 1990 baseline at an average cost of about £415 per metric ton at 2009 prices. The average cost is far higher than the average price under the EU's Emissions Trading*

Scheme or the floor carbon prices that have been proposed by the Department of Energy and Climate Change. If this is typical of the cost of reducing carbon emissions to meet the UK's 2020 target, then the total cost of meeting the target would be £120 billion in 2020, or about 6.8% of GDP".

The difference between the gas generating plants and the wind plants is a factor of nearly 10 times. It is likely that this ratio will be similar for Jersey.

3. Fuel Poverty and energy affordability.

No account has been taken of fracking and the availability of gas. This raises the question, should JEC convert in house generation to gas? The cost of gas in the US in 2005 was $15 per mBtu. The recent cost is $3.00 per mBtu. The prospects offered by shale gas in the UK are such that gas should be available at a significantly lower price than is currently available.

If a generous buy back allowance is given by JEC for micro generation then those who cannot afford solar panels, windmills etc, such as those living in Les Marais flats, will be paying higher prices to subsidise those can afford them. This is a thoroughly regressive tax.

In short, government should not take actions that are effectively some form of price control.,

CONSIDERATIONS

The Terms of reference of the review are:

1. The institutional and regulatory framework, including the role and activities of the proposed new energy partnership and the future of existing energy bodies;
2. The adequacy of the proposed means to deliver the planned energy savings in the domestic and commercial sectors;
3. The prospects for large scale renewable energy sources and how Jersey should exploit them;
4. The roles of technology, logistics, behaviour and attitudes in transport energy use, and the interdependence of transport with other policy areas including spatial planning and economy.

Given that the assumptions upon which this consultation document rely are flawed, the concept of this quango and supporting measures, which are intended to force a change in our way of life, is untenable.

It is entirely reasonable to encourage the Island to reduce energy consumption and to assist those at the bottom of the scale who might find the cost of insulation, better appliances or the like too expensive. However, to aim for an 80% drop in emissions which would, in effect, take us back several hundred years in living standards on a questionable premise makes little sense. This is all the more crucial since it is not clear in which direction the temperature will go. If it falls, as might quite well be possible with the current low solar activity, then the adaptation required is not quite the same as required for a rising temperature.

There is a total lack of financial assessment or a strategic environment assessment of the broader implications of the policy. My rough calculations indicate the effect on one

household of the consequences of the proposed policy. My house is well insulated – scoring green on the heat loss map of the Island – but it was not built to cope with continuous cold weather. It is also not built for primitive heating mechanisms as it has no fire place - which is typical of many similar properties.

Whilst it could be said that the Island is well placed for the installation of wind farms offshore, at the moment they are not commercially viable. Technology has yet to catch up with concepts. Additionally, the availability of shale gas and shale oil means that conventional sources of energy are readily available for a considerable time. Time in fact to allow for the development of commercially viable renewable energy sources. The latest review in the Institution of Engineering and Technology journal estimates that Tidal Power will not be on stream and possibly commercially viable for another 15 to 20 years.

As the price of energy has risen consumers have been insulating their houses and buying more fuel efficient vehicles. There has been a switch for some to diesel, which is a pity as these are more polluting than petrol driven vehicles, emitting as they do PM10 particulates. The amount of fuel being consumed in the Island is falling even though the number of cars on the roads has risen. Normal economic forces are at work.

The science in this area is moving quickly and economic conditions generally are not conducive to policies which would increase energy costs significantly in the short term. It would be extremely unwise to take the Island down a route which was not soundly based. The speed with which the science is changing would suggest that carbon dioxide emissions are perhaps not the correct metric to utilize.

It would be advisable for the Department to withdraw this policy and bring out a replacement more appropriate to the current conditions. A simple document concentrating on energy efficiency and means of encouraging this. The submission by the Department has summarized the energy saving programme within the States. This is exactly as I would expect a prudent business to behave and something which could be circulated to the wider community.

Government should not take measures that increase energy prices unless the evidence is absolutely sound. In these circumstances the current programmes to assist low income groups to improve insulation etc under the Eco Active scheme is quite appropriate. The report by Ball, Tabors, Bell to President Carter stated, "*The experience of the 1970s and 1980s taught us that if a technology is commercially viable, then government support is not needed and if a technology is not commercially viable, no amount of government support can make it so."* There is currently no commercial justification for wind farms and unless and until they are commercially viable they should be avoided.

None of the energy conservation schemes should be imposed by legislation, as appears possible in the Health and Social Services draft law "Public Health and Safety (Dwellings) (Jersey) Law 201-." This Law, if unamended, would allow inspectors to obtain entry to private dwellings to "give advice on energy and water conservation". This is not necessary as the market is already effecting the conservation.

The types of schemes and policies being adopted in the UK are unsuitable for Jersey, particularly the subsidies for buy in of household micro generation. Any buy in price

must be realistic and must be at a level which minimises costs for the low income groups otherwise it becomes a highly regressive tax.

Most Islanders have grown up with the concept of generating companies supplying power to meet the needs of the customer. There is no indication that supplies of the raw materials are such that this needs to change to a demand management or rationing system. If the price rises then customers will, as is normal, seek substitutes. However, as Julian Simon showed, companies will also use raw materials more efficiently or seek alternatives. It is not necessary for government to expand yet further and adopt even more regulation to impose something which the market will do as a matter of course as it adapts to a change in climatic conditions.

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