

## **SCOTTISH PARLIAMENT INQUIRY INTO ENERGY**

I submit the following 6 points for consideration by the Committee. I would be pleased to elaborate in oral evidence

### **1. Need for a Scottish energy strategy**

There is no clear and unambiguous strategy on energy demand and supply for Scotland. This is necessary to place specific initiatives and action into a broader context of Scottish Government economic, social and environmental policies and within the framework of the reserved/devolved powers split on energy between the UK Government and the Scottish Government. The RSE report of 2006 gives a very clear statement of the need for and contents of such a strategy. With the passage of time this strategy is even more necessary: many unconnected initiatives have been taken, energy prices are at an all-time high, security of supply issues have risen in seriousness, and no decisions have been made on replacing aging electricity generating capacity.

### **2. Substantially improving the energy efficiency**

There are now so many energy efficiency measures that the public are confused and the cumulative effect on efficiency savings is inefficiency. Fewer schemes geared towards what the domestic householder is likely to buy into are needed. The focus must be on changing attitudes and behaviour rather than on a series of gimmicky ideas that make good press but little difference in reducing consumption. In addition, the many technological aids, some devised by Scottish based expertise, need to be brought into common place use.

### **3. Reducing fossil fuel use**

This is a critical issue given the proven link between greenhouse gas emissions as a result of fossil fuel use as an energy source and global climatic change. It is also critical from the perspective of security of supply, see point 5 below. The development of renewable sources of energy along side developing and implementing new technologies are the key. The principle issues relate to heating and transport as all statistics of consumption show that these are the major users of fossil fuels (plus the waste in energy in current electricity generating stations). Incentives for the development of new technologies and their adoption by consumers are needed.

### **4. Improving assessment methodologies**

There are many ill-informed arguments about the relative merits of different technologies for reduction of greenhouse gases: statements that nuclear generation of electricity and wind turbines are carbon neutral for example. Any whole life cycle analysis will prove these to be grossly inaccurate. The major problem is the lack of an objective methodology for comparative analysis of the different technologies for energy production. This is an urgent priority and one which should be funded by the Scottish Funding Council through the expertise at the universities based in Edinburgh and Glasgow.

## **5. Achieving diversity and security of supply**

All energy experts that I have spoken to in recent years have emphasised the vital importance of secure supplies of energy for economic and social reasons. This means that diversity is the name of the game, i.e. not placing reliance on one single geographical source, or one technology, or one energy vector. Therefore the over reliance on oil and gas when our own resources are declining does not make economic sense, nor does the over reliance on onshore generated wind energy for electricity when the natural resource is very volatile and there are very limited means of storing the energy generated.

## **6. Resolving the looming electricity generation gap**

There is a gradually increasing recognition of the potential for power outages and power shortages with the successive closure of the current generation of electricity generating in Scotland, and in England. The arguments about the alternatives are unreasonably polarised in society, in government and among so-called objective advisers. There is no evidence available that is technically robust to support the contention that energy from renewable sources that are episodic in nature, such as wind and waves, will be able to fill the supply gap left by the closure of the large stations. If security of supply is to be maintained, there will have to be a mix of technologies - renewable and non renewable, until such time (probably in two to three decades), when a combination of technologies applied to renewables and to substantially reducing the GHG footprint of fossil fuels use can bridge the gap. If Scotland is not to have a new generation of nuclear powered electricity generating stations, it will need a new generation of stations using fossil fuels along side the development of renewable sources, **unless** it is decided to import electricity from outside Scotland. This would inevitably mean increasing dependency on others, such as England and France, and also dependency on nuclear generation sources.

Also there is a total lack of a coherent and coordinated strategy for renewables; the approach adopted - that the market will provide, has proved to be erroneous. The Town and Country Planning system cannot cope, the lack of any strategic guidance from the Scottish Executive has been lamentable, and the failure to resolve grid connection from the areas of renewable energy concentration to the consumers and to reform the charging structure are issues all requiring urgent solutions.

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Secretary Royal Society of Edinburgh Inquiry into Energy Issues for Scotland 2005-2007

Chief Executive Scottish Natural Heritage 1992-2002

## References

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