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General

1. How should Scotland provide for its energy needs over the next 5, 15, 30, 45 years, in the context of the likely UK European and global energy environment?

Scotland should make its people aware that there is a looming energy crisis and that conservation measures need to be taken by everybody in order to reduce our dependence on fossil fuels. This should be phased in over the next 20 years using whatever funding mechanism be it market or grant scheme to motivate people to reduce their consumption. People are still too complacent about energy so a concerted effort needs to be made to educate, especially with children as adults are harder to convince. Sustainability as a concept needs to be part of the mass conscious. In parallel to this program we need to be exploiting our renewable energy resources which are vast. More money needs to be made available on the ground to get projects in the faces of communities so that everyone can see that things are being done. Big wind farms should be sensitively located and sized so as not to have a retrograde effect on people's perception of renewable energy. Tidal, off-shore wind and wave power need to be rolled out as soon as the technology is available. We need long term commitment from government now that Scotland will be nuclear free.

2. Should Scotland aim to be self sufficient in energy in general, and in electricity in particular, despite trends towards interdependence within Europe?

In terms of global and European, I think we should all be concerned about our own regions. If there is to be energy trading in the future I think it will be more localised. Renewable energy by it's nature is localised and should be used locally, with any surplus available to be traded. This requires a more distributed electricity network. Scotland is well located to provide a surplus of energy and the European super grid, should it be put in place could supply that surplus.

Heat can be provided by biomass, an abundant source in Scotland and hydrogen for transport, produced from renewable energy sources.

3. What are the possible implications and consequences for Scotland, and for the UK, of becoming increasingly reliant on imported oil and gas for their energy needs.

The UK will suffer greatly if it remains dependant on oil and gas. The UK's balance sheet largely relies on our indigenous oil and gas.

The resource is over its peak production so will forever be in decline (the rest of the world's resources soon to follow). If we don't look to secure our supply from our own resources our economy will not be able to afford the high future prices of fossil fuels and we will be forced into a declining economy

Energy Supply

4. What are the feasibility, availability, reliability, sustainability, capacity and risks of the different energy generation technologies?

Wind, biomass, solar all feasible available reliable now. The capacity is only constrained by the cost of switching over from traditional fuel sources. The risks are small as the technology is developed and understood.

Tidal, wave, hydrogen are all feasible and available with a huge capacity in Scotland the only risk is the adverse risk culture of the investors in the UK and we could lose out (again) to other countries. The government needs to provide assurance and realistic commitment to these technologies.

The environmental risk of nuclear is too great, not to mention the dubious economic case

Fossil fuels are safe in the short term and unviable in the long term

5. What are the likely trends and uncertainties in the availability and cost of energy sources over the next 20/45 years?

Oil shocks will destroy the confidence of the market and the economy will suffer. This will happen within the next 20 years and large social upheaval will result as job losses and the strain on the country will increase. The cost of transport and electricity will increase, compounding the situation.

6. What are the economic interests of capital investment in the supply and distribution of energy that need to be considered?

Simply more investment is required now to insure us against the effects of the previous question

7. What are the key issues surrounding the development of Scotland's bulk electricity transmission and local distribution systems?

Large wind farms could destroy the credibility of renewable energy if it isn't done without due consideration to the social and environmental effects on local communities. It would be much better to have organic growth of RE through community development. The grid MUST be adapted to cope with distributed supplies of electricity so we can all become generators as well as users. The costs are huge and the environmental impact potentially damaging.

Energy Demand

8. What will the impact of energy availability and price be on the demand

for energy by commerce and industry in Scotland?

Without a reliable and stable price of electricity industry will not be able to invest or fix costs with confidence and this will hamper economic sustainability. It might force industry to supply its own electricity which is not a bad thing and could help to maintain stable prices for everyone if the distribution system can be adapted to receive surplus generation

9. What are the likely trends in domestic demand for energy for space heating and other purposes? What would need to be done to achieve major savings? What are the investment costs?

Education is relatively cheap and effective. As the price of electricity rises steadily it will help people to justify spending money on energy efficiency. Grants from the government might also help motivate people towards improving their home's efficiency. This must be the biggest focus as it provides the greatest reduction in energy costs for the least investment.

10. What are the likely trends in the demand for energy for transportation in Scotland? What is the likely timescale and scope for substituting other power sources for fossil fuels? What are the likely investment costs?

In a growth economy people will always use their cars more for increasingly unnecessary journeys. As the price of oil rises people will be forced to travel less or at least consider the need for a journey. The hydrogen transport system has to be the eventual goal, but it requires huge investment to get there and time to achieve it. The technology requires more long term investment to get us there quickly

Environmental and Social Issues

11. What are the environmental concerns that need taken into account, in terms of the impact on ecological and other natural resources, as well as waste management and impacts on the landscape?

Sustainability is vital to all questions. The technical, physical, environmental, economic and social systems must be looked at for each new development and joined up thinking must be adopted from the global scale down to the local. If these criteria are not met then more effort must be applied to make them happen. Only when we achieve that balance can we have a sustainable future. Recycling, waste to heat, biogas etc need to be adopted within the framework of the system at large.

12. Can the objectives of environment improvement and economic growth both be met without a major increase in energy costs? What steps should be taken to enable an informed debate on the issue?

We need to accept that we should be living within our sustainable means and a growth economy does not fit in with this paradigm. If we must grow our economy, let the goal be sustainability rather than the increase in material wealth. The satisfaction of individual needs and wants can be attained through continuous efficiency and a move towards sustainability rather than blithe use of finite resources. I can't see this happening until people stop thinking materially. Perhaps a new religion is required!

13. What are the social values and consequences of energy generation and distribution on employment opportunities, health and energy affordability?

If energy is generated locally and local people benefit from their own efforts in creating something so fundamentally important to their lives, it will provide a deep sense of satisfaction that is missing when you have to pay a faceless profit making organisation for your energy. It will be much harder to take energy for granted when you are can see where it comes from. One might also be inclined to use less of it if you know that income can be generated from a surplus. This will bring communities together and solve a lot of social problems, while providing local employment.

Yours with sincerity

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