SUBMISSION FROM MAY HURRY

TARGETS

1. No. According to the Institute of Mechanical Engineers Report “Scottish Energy 2020?” the subsequent revision of the electricity generation target to 100% was not supported by a rigorous engineering analysis of what is physically required to achieve a successful outcome in the timescale available.

2. Absolutely nothing. China is responsible for 25% of global CO2 emissions; the UK as a whole emits some 1.68% of global emissions, therefore Scotland's percentage is less than 0.18%. ANY reduction is meaningless in global terms and is mainly to satisfy Alex Salmond's grandiose view of himself as some sort of world saviour.

3. No. I refer again to the Scottish Energy 2020? report which states that electricity generation is responsible for only a small proportion of energy related greenhouse gas emissions: transport, and to a greater extent heat, make up the majority of Scotland's greenhouse gas emissions.

The greenhouse gas (GHG) emissions target Scotland has adopted unilaterally is a 42% reduction below 1990 levels by 2020 with an 80% reduction by 2050 - equivalent numbers for the UK as a whole are 34% and 80% respectively. Scottish policy thinking in this area appears to be based on a belief that GHG emissions will automatically be reduced if sufficient renewable energy technologies are deployed particularly for electricity generation. However the provision of “on-demand” energy conversion technologies required, probably fossil-fuelled, to back up the intermittency inherent on relying on large scale wind, solar and wave technologies will have an impact on net emissions saving that does not at this stage appear to have been recognised.

4. No. No costings are available or apparently have been carried out. The cost of upgrading the grid will be prohibitive and will probably be paid for through even more hikes in electricity bills in addition to the 11.1% green taxes which have been added to date.

CHALLENGES

(a) Technology.

1. No. Significant development work is required to improve the performance efficiency and reduce the cost of maintenance. This is particularly the case for generation from offshore wind upon which must of energy policy is focused.

2. No. Because of predicted over reliance on intermittent unpredictable energy sources in wind and solar, gas fired power stations will require to be on “stand by”. Therefore Gas has to be imported from unreliable and potentially hostile countries such as Russia, and the Middle East.
3. Unlikely. Due to cuts in University budgets, the Research and Development departments of these institutions will be affected to the detriment of all development.

(b) Supply chain and infrastructure.

1. Scotland does not have the manufacturing capacity for the volume of equipment which will be required to meet the impossible targets of 2020. Large corporations will only invest in new capacity if conditions are right but the level of red tape is daunting in most cases, and the independence question is causing uncertainty.

2. The Grid is reaching the end of its usual life and requires major upgrading. The cost of this upgrading is several billion pounds. In the case of heat energy, there is no significant available delivery network and no thought appears to have been given to this issue. The cost of wind energy is far in excess of other forms of generation such as Nuclear and Coal fired, so why would the rest of the UK and Europe pay far more for electricity generated in Scotland? France already exports Nuclear generated electricity to the UK. The Scottish Government should accept the recommendations of the report by the Institute of Mechanical Engineers “Scottish Energy 2020?” At least its authors know their subject, Engineering - the Scottish Government obviously does not have a clue about Electricity, Energy or anything else connected with the subject.

(c) Planning and consents.

1. A new planning regime is already in place, whether it is resourced adequately is a matter for local authorities.

2. National priorities versus local interests: the siting of wind factories in areas of wilderness and landscape significance is becoming a national disgrace. Large areas of Scotland rely on tourism and the assertion that wind factories and tourism are compatible is utter nonsense. No account is taken of the damage to the environment by massive quantities of the concrete and steel required for turbine foundations, the pollution and contamination this is causing and the damage to wildlife, especially birds and bats. Wind power is inefficient, expensive and transfers money from those in fuel poverty to the rich and organised. The national priority should be to build nuclear fired power stations. All nuclear installations are inspected by the International Atomic Energy Authority, this agency has a rigorous inspection regime which ensures nuclear installations operate to a high standard of safety. At least this would ensure the lights stay on. As regards “local interests”, the “Scottish Government” is more than happy to ride roughshod over the wishes of communities - so much for "democracy - North Korea style."

(d) Access to finance.

1. Regarding funding, in the current difficult economic climate, SMEs are finding it very difficult to access the finances required to build their businesses to provide the necessary goods and services to meet 2020 targets. SME's must obtain funding from
external sources for smaller scale projects or manufacturing equipment. This makes business opportunities unattractive and stifles the expansion of the renewable energy equipment base in Scotland. Unless the Scottish Government starts quantitative easing or cutting local authorities budgets even further, it is unclear what action can be taken.

2. As usual, the consumer will be hit with even more “greenwash taxes”, putting even more people in fuel poverty, already some 11% of electricity bills are reserved for green taxes paying for useless wind turbines resulting in 32.7% of the population in Scotland being in fuel poverty. Scotland has a particular problem with fuel poverty which is not being addressed by politicians and with the various market incentives for renewable energy contributing to even higher energy costs, the number of households in fuel poverty is likely to escalate to unacceptable levels.

(e) Skills and workforce development

Even if the technology and infrastructure issues available in the timeframe to 2020, there are major concerns in the engineering sector regarding Scotland's ability to provide the human resources required to project manage, design, install and commission the volume of equipment required to meet such over ambitious targets. Current policies are failing to produce the required amount of skilled people, the education system in Scotland has gone from being world class to being third rate. It has been consistently dumbed down to the level of total mediocrity. The oil and gas sector report shortages in specific areas of engineering technology so it is unlikely there is a skill transfer to the renewables sector.

(f) Energy market reform and the subsidy regime

Energy policy in the UK is the remit of the DECC and is not devolved to the Scottish Government therefore this is a matter for the Westminster Parliament. However the subsidy for wind turbines should be substantially slashed as soon as possible and the money transferred to more reliable forms of energy generation such as nuclear, hot rocks and shale gas and to the research and development of new sources of energy such as photosynthesis. The Scottish Government's renewables target is over ambitious, unworkable and completely unjustifiable from an engineering perspective being based on unreliable, intermittent and unpredictable sources such as wind, solar and wave.

May Hurry
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