



16 Robertson Street
Glasgow G2 8DS
Tel: 0141 248 3721
secretary@iesis.org www.iesis.org

Response to the Royal Society of Edinburgh Energy Inquiry 2017

The IESIS Energy Strategy Group promotes the principle that addressing the problems of energy production and use needs an approach that is clear sighted, holistic, and practical.

There is a drive to significantly reduce CO₂ emissions based on the following principles:

- That electricity generation will be mainly from low carbon sources
- That a significant proportion of transport will be powered by electricity
- That a significant proportion of domestic heating will be powered by electricity

The provision of electricity is therefore *the* key issue in the development of a low emissions energy strategy.

For the electricity system, we advise that:

- Criteria for risk to security of supply and to security of operation should be established and any proposal made for the system should meet these criteria.
- Based on a detailed model of the electricity system, predictions of cost and of emissions reduction should be made for a range of generation strategies and demand scenarios. The most advanced modelling methods available should be used.
- Policy decisions should then be made based on balanced judgements taking account of the information from the modelling work and on information about all other relevant issues.
- The modelling and information gathering should be managed by a competent body operating under a system of rigorous quality control and answering to Parliament.
- The governance of the electricity system needs to be restructured so that the policy decisions can be satisfactorily implemented.

Parallel studies to assess government policy for other energy production and use issues should be carried out based on the same clear sighted, holistic, practical ethos.

A main objective of the RSE Inquiry is to: 'Provide clear information on the merits and demerits of potential energy options available to Scotland across a range of criteria.' Reliable information of this kind is not available. It can only be satisfactorily provided by using the system level approach outlined above and that is not being used. In the absence of such methodology, the electricity system, in particular, is likely to become unfit for purpose with disastrous consequences.

We very strongly recommend that the main recommendation from the Inquiry is that all policy proposals for energy are required to be scrutinised under the full power searchlight of science and engineering methodology and of advanced business/financial analysis.