Inquiry on Risk Perception and Energy Infrastructure

Response to House of Commons Science and Technology Committee – Inquiry on Risk Perception and Energy Infrastructure.

December 2011

This response has been written in partnership by:

- The Institution of Civil Engineers
- The Institution of Chemical Engineers
- The Institution of Engineering and Technology
- The Institution of Mechanical Engineers
- The Institute of Physics
- The Royal Academy of Engineering

The *Engineering the Future* alliance has developed this response to provide some information about key projects and activities that relate to the subject matter of the inquiry.

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Engineering the Future is a broad alliance of engineering institutions and bodies which represent the UK's 450,000 professional engineers.

We provide independent expert advice and promote understanding of the contribution that engineering makes to the economy, society and to the development and delivery of national policy.

1. *Engineering the Future* (EtF) is an alliance of engineering institutions and professional bodies which allows the engineering profession to speak with one voice on issues of national and international importance. The varied experience and expertise of its memberships allows the alliance to provide expert, non-biased advice to government across all engineering and related disciplines.

2. This response does not explicitly answer the individual questions posed by the House of Commons Select Committee inquiry. It does, however, outline the work which EtF is currently undertaking to address issues in one key area of energy: nuclear power.

3. *Engineering the Future* is currently scoping a project to consider how to develop an impartial source of factual answers to questions frequently asked by the public on aspects of nuclear power. Key issues raised by members of the public will be identified through discussions with relevant non-governmental organisations, expert researchers in the field of risk perception, government bodies and the nuclear industry.

4. This proposal was developed and presented to the *Engineering the Future* Strategy Group in July 2011. The Strategy Group approved the project and it is currently being developed for final approval in March 2012.

5. *Engineering the Future* is engaged in delivering this project drawing on the technical expertise of engineering professional expertise. This project will build on the organisations' experience of providing strong guidance to the public, industry and government on issues relating to the nuclear sector.

6. This project follows previous *Engineering the Future* work in the nuclear area. In 2010, EtF developed its *Nuclear Lessons Learned* document which analysed the successes and failures of nuclear new builds across the globe. The study demonstrated that despite the long interval since the last UK new build, lessons have been learnt from around the world that will significantly reduce risks and delays in future UK new build programmes. Six of the most relevant projects in recent years were examined, and the outcomes and resolution of unforeseen issues that arose were documented to identify the common lessons which should be learnt.

7. In 2011, a follow-up project developed three documents which focused on specific areas of best practice during the construction phase of nuclear new builds:

    - nuclear safety culture;
    - concrete; and
    - pipe work welding.

    Engineering the Future will continue to support this project and any subsequent 'hot topics' which are identified as potentially benefiting from guidance.

8. The *Engineering the Future* alliance greatly appreciates the opportunity to contribute to this inquiry. We would also like to extend an offer of assistance to the Select Committee in its investigations into this important topic

which address the key issues facing the nuclear industry today. The experience and technical engineering expertise of its membership makes *Engineering the Future* a potentially valuable resource in this area.