

## BRITISH NUCLEAR INDUSTRY FORUM SUBMISSION TO THE ENERGY POLICY REVIEW

### EXECUTIVE SUMMARY

*The British Nuclear Industry Forum (BNIF) welcomes this opportunity to submit its views to the Government's Energy Policy review on behalf of the British nuclear industry.*

For the first time in its history the UK has clear prospects of becoming significantly dependent on imported energy sources for its electricity production. At the same time, Britain's nuclear power stations will be retired, removing a secure, large-scale source of essentially carbon free electricity from the system.<sup>1</sup> These factors pose risks to the security and diversity of the UK's future energy supplies, and seriously jeopardise the achievement of environmental targets for carbon dioxide emission reductions in the region of 60% by 2050.<sup>2</sup> Nuclear energy contributes significantly to the fulfilment of the Government's strategic energy policy and environmental objectives, and to the longer-term transition towards a low-carbon energy economy. But this contribution is threatened.

Around half of the UK's nuclear capacity is due to retire in the next ten years. Nuclear energy provides significant energy supply, economic and environmental benefits to the UK, and the British nuclear industry, with its extensive range of expertise and capabilities, is well placed to take advantage of an international resurgence of business opportunities. BNIF believes that the benefits of nuclear energy should continue to be available; and that, as existing nuclear capacity is lost, the lowest risk option to ensure that the energy security and environmental challenges are met is to replace it with new nuclear generation.

An open, transparent and well-informed public debate on all aspects of nuclear energy within the context of energy and environmental policy is overdue. BNIF believes this will demonstrate that the benefits of nuclear outweigh the perceived disadvantages relating to concerns about waste management and safety, and would serve to inform and improve public and political attitudes towards nuclear energy. Government support for a significant nuclear component in the transition towards a low carbon energy mix will help to secure the UK nuclear option. The price of inaction now would add significant delay and cost to the reintroduction of the nuclear option if required at a later date.

The replacement of the UK's existing fleet of nuclear stations with new reactor designs, incorporating passive safety features, could, with the benefits of series build, deliver competitive nuclear generation costs estimated in the range of 2.2p –3p/kWh. The following conditions involving a strong degree of Government commitment and support

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<sup>1</sup> 1 kWh of nuclear energy emits 4g CO<sub>2</sub>, compared to 446g CO<sub>2</sub> per kWh of gas energy, and 995g CO<sub>2</sub> for coal energy

<sup>2</sup> As recommended by the Royal Commission on Environmental Pollution in its report *Energy – the changing climate*. (June 2000)

would be required to bring forward applications and investment for replacement nuclear capacity in the appropriate timescale.

***Key conditions for replacement of nuclear capacity***

- A stable and rational electricity market that recognises and delivers strategic, social and environmental policy objectives as well as purely commercial objectives.
- A stable and predictable regulatory regime, and streamlined planning process for large-scale projects, to reduce the perceived financial and political risks to investment in capital-intensive projects such as nuclear energy, hydro generation and some renewables schemes.
- Introduction of market-based fiscal measures which recognise and reward the strategic and environmental benefits of nuclear energy, and encourage the transition towards a low carbon energy economy.

**SUMMARY OF PRINCIPAL CONCLUSIONS**

- any overall policy that can realistically be expected to address all the competing challenges must support and encourage the transition to a low carbon energy economy, and has to include a continued long-term significant contribution of nuclear electricity generation to energy supply in the UK.
- the replacement of the UK’s existing fleet of nuclear stations with new reactor designs, incorporating passive safety features, could, with the benefits of series build, deliver competitive nuclear generation costs.
- a process of decision-making involving public information and involvement which is seen to be leading towards an acceptable solution for waste disposal is essential, but the physical existence of the preferred solution should not be seen as a prerequisite for future nuclear development.
- to secure a nuclear option for the UK in terms of indigenous skills, expertise and infrastructure a clear supporting position from Government is required. The price of inaction now may be the loss of a UK nuclear option.
- reliance solely on current market mechanisms will not guarantee the long run energy policy objectives of security, diversity, and sustainability. Government should therefore consider what form and scale of market-led solutions can deliver its objectives and what other policy areas should be addressed (e.g. “polluter pays”).
- capital-intensive projects such as nuclear, hydro generation schemes and some renewables technologies will attract the support of City institutions when there are

supporting mechanisms (including Government initiatives) in place to reduce the perceived financial and political risks of such investments.

## RECOMMENDATIONS

**BNIF recommends that:**

- **Government should develop appropriate market-based fiscal or innovative measures to encourage the transition towards a low carbon energy economy. It is essential that a dependable carbon-free base load supply of electricity is part of the energy mix.**
- **Government should recognise the important role of nuclear energy and give strong policy support to ensure its future contribution to the achievement of energy policy and environmental objectives.**