

Energy Review

Nuclear Briefing

Cost Benefit Analysis: how nuclear could contribute to our goals

- Cost benefit analysis shows nuclear generation providing net benefit in central/high gas price and central/low nuclear cost scenarios.
 - Primarily environmental benefits: carbon emissions reduction is around 0.8m tonnes/GW.
 - Security of supply benefits as an add on: nuclear could reduce gas imports by 10% by around 2025.
- However, nuclear has negative impact in low gas price and low carbon price scenarios. Also negative impact if nuclear costs are high unless carbon prices are also significant.

Nature of decision on nuclear

- Government to clarify whether, in principle, it would consent to new build proposals. For private sector to make proposals, within market framework.
- Range of measures could remove barriers which disadvantage nuclear in relation to other technologies.
- Need to transfer as much of the risk as practicable, recognising that HMG would always be seen as ultimate guarantor of nuclear liabilities.
- Greater certainty on carbon price would help nuclear and other technologies.

Enabling measures to reduce risk and uncertainty in pre-construction phase

- Clarifying HMG's position and establishing a national need for nuclear;
- Improving how planning inquiries are run;
- Focussing planning inquiries on relevant local issues by providing more appropriate fora for public to participate in discussions on national issues before planning applications are submitted;
- A pre-licensing system; and
- Ensuring that the necessary grid upgrades are seen as an intrinsic part of any new build and planning permission is considered at the same time as the generating station.

Decommissioning and waste

- Starting principle is that developers should meet costs of decommissioning and waste management.
- There is uncertainty over these costs (both for industry and HMG), with waste uncertainty compounded by CoRWM decision process.
- Detailed arrangements for ensuring liabilities are funded would not need to be in place immediately.
- However, we would need to establish a framework for working with industry to better understand costs, and developing arrangements that protect the taxpayer while giving certainty to industry.

REDACTED MATERIAL

Conclusions

- Economics of nuclear depend on key assumptions about gas and carbon prices and on nuclear costs.
- Government role is to take facilitating measures. Key remaining issues are:
 - Waste
 - Decommissioning
 - Carbon price
- In order to provide low carbon alternative to help meet gap after 2016 caused by retirement of existing capacity, need to start work on implementing facilitating measures now.