Re: PREMATURE APPLICATION BY Electricité de France TO INSTAL TWO UNTRIED NUCLEAR REACTORS AT HINKLEY POINT 12 MILES NORTH OF TAUNTON, BETWEEN EXETER AND BRISTOL

November 2011

ADVANCE BRIEFING FOR IPC COMMISSIONERS AND ASSESSING STAFF

For the attention of:

Sir Michael Pitt, Pauleen Lane CBE, Robert Upton CBE, Paul Hudson, John Saunders, Mark Wilson

– copies rec'd for all of the above

Summary

Electricité de France (as New Nuclear Build Genco Plc), 84.5% owned by the French Republic, has submitted (31st October) an application to the Infrastructure Planning Commission for permission to install two untried large nuclear devices to heat water on the Bristol Channel 12 miles north of Taunton. Environmental Permits have not yet been granted by the Environment Agency. A Nuclear Site Licence is not expected to be approved, if at all for such large hitherto untried nuclear devices, by the Health & Safety Executive until the end of 2012. The Infrastructure Planning Commission has until 29th November 2011 to reject the application from Electricité de France as premature, on the basis that the application is beset with uncertainties and inconsistencies requiring resolution.

Principal Points to consider in exercising Due Diligence

1 The unorthodox nuclear devices proposed by Electricité de France have not been constructed or tested anywhere in the world.

2 There is a strategic risk to the electricity generating infrastructure of the UK, in particular to that serving the Midlands and London from Hinkley Point in

Somerset, if approval were to be given for the attempted construction of so large an electricity generating plant with a claimed (by EdF) output of 3,260 megawatts. Reliance on such generating capacity from one twin-reactor plant is potentially a significant threat to the security of electricity supply.

3 The use of nuclear devices to heat water to produce steam to drive the turbines to turn the generators is notoriously hazarded with sudden unplanned outages, where the nuclear plant suddenly stops generating electricity. For this reason, in each grid node in which nuclear plant is situated, gas-fired and oil-fired generating plant has to be run continuously on standby to be ready to come up to full power when the uranium-fired plant goes down. Has EdF made sufficient provision to cover unplanned outages in the South West grid node?

4 The software for computer control of the safety system of the nuclear device consists of thousands of lines of code. Hundreds of programmers have written the code for component parts of the safety control system. The complete code is not known to one person. It is almost certain that there will be errors in different parts of the code, any one of which could compromise the safe operation of the reactor. Furthermore, the safety system could be at risk of invasion by a virus such as the Stuksnet worm, which has been attacking software controlling nuclear reactors and other critically exposed national infrastructure. Has EdF proposed sufficient protective measures to avert criticality in safety control of the proposed new reactor type?

5 The applicant (EdF/NNB Genco) has not sought or obtained approval from neighbouring Health Authorities in England and Wales, as required under UN/EC/EU regulations and conventions covering the construction of large scale generating plant and the use and storage of substances hazardous to health.

6 For the IPC to be seen to encourage Electricité de France to proceed with its application might be regarded by electricity consumers to be a green light signalled by the IPC for a 35-50% hike in the price of electricity.