

Hitachi-GE Nuclear Energy, Ltd. (Hitachi-GE) is a joint venture of Hitachi Ltd. (80.01%) and General Electric, Ltd. (19.99%). The company was founded on 1st July 2007 as a strategic global alliance.

Hitachi-GE is one of the world's leading comprehensive plant manufacturers. The company engages in the development, planning, design, manufacture, inspection, installation, pre-operation, and maintenance of nuclear reactor-related equipment and is able to execute integrated project management.

Hitachi-GE has been involved with 23 reactors in Japan to date, including those currently under construction. Among them, it has participated in all of Japan's Advanced Boiling Water Reactor (ABWR) projects—four ABWRs are already operational and three are under construction. Overseas, it has supplied major nuclear reactor equipment for the Lungmen Nuclear Power Plant in Taiwan.

In the UK, Hitachi-GE is the technology-provider and lead-contractor to Horizon Nuclear Power (Horizon), which has plans to develop and construct the UK ABWR at its two proposed sites, on the Isle of Anglesey and in South Gloucestershire. Hitachi-GE is also the Requesting Party for the Generic Design Assessment (GDA) of the UK ABWR.

Introduction

- i. Hitachi-GE appreciates the opportunity to respond to this consultation on the Regulatory Justification of the UK ABWR.
 - ii. Whilst Hitachi-GE is the Requesting Party for Generic Design Assessment (GDA) and the reactor provider for Horizon, the company is not the applicant for Regulatory Justification. In line with precedent, and as the trade body for UK nuclear companies, the UK ABWR Regulatory Justification applicant is the Nuclear Industry Association (NIA).
 - iii. In cooperation with Horizon, Hitachi-GE has worked with the NIA throughout preparation of its application, providing material on the UK ABWR.
 - iv. We believe it is important to note that whilst the ABWR has been deployed in Japan and Taiwan, the NIA's application relates to the UK ABWR. The UK ABWR is the derivation of the ABWR technology which is proposed for deployment in the United Kingdom.
- 1. Do you agree with the Government's preliminary view that the class or type of practice set out in the application submitted by the Nuclear Industry Association:**
- a. **qualifies as a new class or type of practice; and**
 - v. Under Regulation 4(1) of The Justification of Practices Involving Ionising Radiation Regulations 2004: A class or type of practice is "new" for the purposes of these Regulations if no practice in that class or type was carried out in the United Kingdom before 13th May 2000, and neither has the class or type of practice been found to be justified.
 - vi. On the basis that no UK ABWR technology has been operated in the UK, nor has it previously been justified, Hitachi-GE believes that this is appropriate.
 - b. **is a suitable class or type of practice for a decision by the Secretary of State? If not, why not?**
 - vii. Hitachi-GE believes that this is a suitable practice for a decision by the Secretary of State.
- 2. Does the application contain sufficient information to enable the Justifying Authority to make an assessment of the class or type of practice in the application? If not, what further evidence is needed?**

- viii. The NIA's application provides extensive information on the UK ABWR, its fuel cycle and its waste management facilities, as well as providing significant amounts of broader information on the impacts of radiation. The scope and extent of this information is in line with the previous successful applications for Regulatory Justification for the EPR and AP1000 reactors.
 - ix. Furthermore, annex five of the application specifically considers extreme accidents and severe events in additional detail, which is appropriate given public interest in the events of March 2011 at Fukushima Dai'ichi.
 - x. We believe that there is sufficient information available to enable the Justifying Authority to make an assessment of the application and that, in addition to this information and as noted in the application, further information relating to the UK ABWR disposability assessment will also be made available during the Secretary of State's consideration of this application. A significant amount of this information will be publicly available through Hitachi-GE's Generic Design Assessment website: www.hitachi-hgne-uk-abwr.co.uk.
- 3. Do you have any comments on the arguments or evidence in the NIA's application? Are there any additional arguments or evidence which the Justifying Authority should consider?**
- xi. Hitachi-GE believes the NIA's application gives a full and complete set of arguments, supported by a strong body of evidence. The company does not believe there are any additional arguments or evidence which the Justifying Authority should consider.
 - xii. The UK ABWR builds on the experience of the general ABWR technology. This is a proven reactor design, which has been successfully deployed in Japan, with two units at Kashiwazaki-Kariwa, one at Hamaoka and one at Shika. There are a further four in construction, one at both Shimane and Ohma in Japan, and two at Lungmen in Taiwan.
 - xiii. The UK ABWR can build on these experiences, reliably providing large quantities of secure, sustainable and affordable energy to the UK.
- 4. Do you have any other comments on the Secretary of State's preliminary view of the class or type of practice, on the approach of the NIA, or any other options?**
- xiv. Hitachi-GE does not have any further comment in these areas, but recognises that the NIA's approach is in line with the previous successful applications for Regulatory Justification for the EPR and AP1000 reactors.
- 5. As part of the further consultation on the draft decision document, the Secretary of State proposes to run public engagement events. Do you have any suggestions about the format of such events?**
- xv. Hitachi-GE believes that the process proposed by DECC for public engagement around Regulatory Justification is highly transparent.
 - xvi. Hitachi-GE holds a strong commitment to openness and transparency. Commitment to technology transparency is demonstrated through the UK ABWR technology website (<http://www.hitachi-hgne-uk-abwr.co.uk>) which provides extensive information on the reactor design.
 - xvii. The company would support the development of public engagement events as part of the consultation, in line with previous precedent for such activities.