

News Release

FOR IMMEDIATE RELEASE

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Hitachi-GE, Imperial and Bangor University developing of UK and Welsh BWR expertise



Signing Ceremony

London, 31 October 2016 – Hitachi-GE Nuclear Energy, Ltd. (Hitachi-GE) has signed a Memorandum of Understanding (MOU) with Imperial College and Bangor University, enhancing its commitment to support Welsh and British expertise.

Hitachi-GE will provide industry advice to Imperial and Bangor's newly formed "Boiling Water Reactor (BWR) Research Hub and Network", drawing on its extensive BWR experience to provide technical expertise and support. This will include part-time deployment of a researcher to Bangor, and building on the existing programme of Japanese internships for UK students.

Today's announcement was made on the back of a successful technical conference hosted by the two Universities in Bangor last week. Hitachi-GE is already supporting nuclear development in North Wales, providing the UK ABWR reactor to Horizon Nuclear Power for Wylfa Newydd, under contract to delivery team Menter Newydd.

President and Representative Director of Hitachi-GE, Hidetoshi Takehara, said: "This is about helping create a deeper and broader pool of BWR expertise here in Wales and across the UK, supporting the engineers and industry of the future. This hub provides focus and coordination to BWR research, ensuring that Wales and the UK develop real expertise in BWR technology for now, and for the future.

He went on: "With development of the UKs first BWR proposed just up the road at Wylfa Newydd, this scheme helps ensure that project is a springboard to the UK becoming a world-power in its domestic expertise on BWR technology.

Dr Michael Bluck, Director of the Centre for Nuclear Engineering at Imperial, said: "Imperial is proud to be working with Hitachi-GE and Bangor University to establish greater Boiling Water Reactor expertise in the UK. This scheme which will examine research needs and formulate projects to support the continued production of low carbon, baseload electricity for the UK and many other countries for decades to come.

Dr Bluck added: "The BWR Research Hub and Network will bring together the UK research base with Hitachi Nuclear researchers to help develop future generations of Boiling Water Reactor technology here in the UK and Wales.

Prof John Hughes, Vice Chancellor, of Bangor University, said: "We are delighted to partner with Imperial College, London with expert input from Hitachi-GE in this important development for the UK energy sector. This collaboration will enable Bangor University to help to build new academic and research capacity here in North Wales to create nuclear expertise in a new generation of scientists and engineers in the field of BWR technology. He went on: "We were particularly pleased to see the inaugural conference of the BWR Research Network take place in Bangor last week, following previous meetings in recent months which we have hosted here between industry and academia on this important topic. Bangor University will continue to ensure that the benefits from the proposed investment in new nuclear facilities utilising this technology at Wylfa Newyedd will be

Notes to editors:

maximised both in North Wales and within the wider UK."

- Photo attached from left to right:
 Professor John Hughes (Vice Chancellor of Bangor University), Kumiaki Moryia (Corporate Chief Engineer at Hitachi-GE Nuclear Energy Ltd.), Dr Michael Bluck, (Director of the Centre for Nuclear Engineering at Imperial College London)
- The BWR research hub was formed by MoU between Imperial College and Bangor University in June 2016. Its objective is to: "To enable the academic and industrial communities of Wales and the wider UK to deepen and enhance their understanding of BWR technology, and participate in research and development relating to this and future generations of boiling water reactors."
- The hub is led by a steering group chaired by Imperial College's Dr Robin Grimes, and will shortly appoint a Director to coordinate its activities. Logistical support is provided jointly by Imperial College and Bangor University.
- Also on the Steering Group are the founding partners (Imperial College and Bangor University); BWR technical partners – Hitachi-GE and Horizon Nuclear Power; supply chain partners such as Amec-Foster-Wheeler; the Welsh Government; the UK Government; and other interested parties such as the EPSRC and the National Nuclear Laboratory
- Hitachi has been continuously involved in the construction of nuclear power plants for more than 40 years. Hitachi has participated in the design, development and construction of 23 nuclear power plants within Japan, including BWR and four

Advanced Boiling Water Reactors – the world's most advanced operational design. The ABWR is operational four units at three sites in Japan and further five units in construction; two in Taiwan and three in Japan.

- Two UK ABWRs will be deployed at Wylfa Newydd, generating around 2.7GW of energy between them. For information on the UK ABWR visit: <u>www.hitachi-hgne-ukabwr.com</u>
- Wylfa Newydd is being developed by Horizon Nuclear Power a 100% subsidiary of Hitachi Ltd. Horizon Nuclear Power is supported by Menter Newydd and their contractors, including Hitachi-GE. Wylfa Newydd project represents a multi-billion pound investment in UK infrastructure and will create tens of thousands of British jobs.

About Hitachi-GE Nuclear Energy, Ltd.

Hitachi-GE, a joint venture established by Hitachi, Ltd. and GE in July 2007, as one of the world's leading comprehensive plant manufacturers, 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.

About Imperial College Centre for Nuclear Engineering

The Centre for Nuclear Engineering (CNE) is the umbrella organisation for all nuclear engineering academic activities at Imperial College London. The CNE brings together world-leading academics from a variety of disciplines to conduct cutting-edge research; to train nuclear engineers; and to engage with the wider community about the future of nuclear power. Our academic staff span a wide variety of disciplines providing a cluster of excellence in the heart of London put together to tackle challenges in delivering new technology and driving forward our understanding of nuclear energy. Most recently, this has resulted in the award of the ICO EPSRC Centre for Doctoral Training in Nuclear Energy, together with our partners at The Open University and the University of Cambridge. This ICO EPSRC CDT will train cohorts of students who will undertake leading research, work with industry, and continue in our mission to train the next generation of leaders in Nuclear Engineering. Our history and experience in Nuclear Engineering is outstanding, starting just after the Second World War. We are looking to the future to meet the demands of global programmes in new build, next generation (GenIV and Fusion), life extension, storage, waste and decommissioning. Our talented teams of engineers and scientists work closely together to drive forward change, together with industrial partners to forward our understanding and deliver real impact. www.imperial.ac.uk/nuclear-engineering

About Imperial College London:

Imperial College London is one of the world's leading universities. The College's 16,000 students and 8,000 staff are expanding the frontiers of knowledge in science, medicine, engineering and business, and translating their discoveries into benefits for society. Imperial has nine London campuses, including its White City Campus: a research and innovation centre that is in its initial stages of development in west London. At White City, researchers, businesses and higher education partners will co-locate to create value from ideas on a global scale.

www.imperial.ac.uk

About Bangor University

Bangor University is a research focused University and is in the top 40 in the UK for research excluding specialist institutions and single-submission universities. Bangor University research has a major impact around the world according to the latest assessment of research quality, the Research Excellence Framework (REF) 2014. The REF recognised that more than three-quarters of the University's research is either world-leading or internationally excellent, ahead of the average for UK universities. Over half of Bangor University's academic Schools have been ranked in the UK top 20 for quality of research. The University also has a strong mission commitment to working with Business and a long-standing track record of Knowledge Transfer activities through high quality and award winning business engagement initiatives. It is committed, with other partners, to the expansion of academic capacity to deliver leading edge research and teaching to ensure a supply of highly skilled graduates to support to the growth of sustainable energy-related industry in North Wales, in particular, the planned major investment in nuclear power. The University was established in 1884, and has over 11,000 students.