

## **Rolls-Royce SMR response to the Economy, Trade and Rural Affairs Committee's inquiry: Nuclear energy and the Welsh economy**

Rolls-Royce SMR is pleased to contribute to the Economy, Trade and Rural Affairs Committee's inquiry into *Nuclear energy and the Welsh economy*.

### **What potential economic impact could new nuclear developments in north Wales have on the regional economy?**

To reach the Government's target to develop 24GW of new nuclear by 2050, there needs to be a significant scale-up in the delivery of new nuclear projects, including the deployment of a fleet of Small Modular Reactors (SMRs). The UK currently has just 6.5GW of installed capacity, which accounts for 15% of our electricity.

In a recent report commissioned by the Nuclear Industry Association, Oxford Economics found that the nuclear sector already contributes £16.1bn to UK Gross Value Added to the economy, which is clustered around existing nuclear sites. This number is set to rise substantially if the UK can meet its 2050 target of 24GW – almost quadruple what we have today.

Rolls-Royce SMR is the quickest and most affordable way to get new nuclear on the grid and is the UK's first domestic nuclear technology in more than 20 years. Each of our 470MW SMRs will produce enough stable, affordable and emission-free energy to power a million homes for 60 years.

Each of our sites and factories will support hundreds of highly-skilled, highly-paid jobs across the local area, including in engineering, manufacturing and construction – both directly working for Rolls-Royce SMR and in the supply chain. The majority of our activities will to be concentrated in Wales and the North of England.

Unlike conventional large-scale nuclear projects, our factory-led approach means at the height of the construction of our SMR, there are only around 1000 workers on site, and each SMR will create 400-500 long-term jobs while it is in operation. We expect that the majority of these workers will be local to the area.

This approach minimises disruption to the local community, while also providing long-term, sustainable economic impact to the surrounding area. It also allows us to move many highly-skilled jobs into factories and hubs – away from site – across the UK to provide more widespread, long-term benefits to more communities.

Wales has enormous potential to be a frontrunner in plans to rejuvenate the UK's nuclear sector, with the Wylfa Newydd and Trawsfynydd sites in North-West Wales at the heart of these plans. Both sites are suitable for SMRs and Rolls-Royce SMR listed both as priority sites for deployment following a siting assessment conducted in conjunction with the Nuclear Decommissioning Authority in 2022.

The opportunity for new nuclear at Trawsfynydd was recognised by the Welsh Government through the creation of Cwmni Egin, which aims to create sustainable jobs and promote economic and social regeneration by facilitating development at the former nuclear power station site. We continue to work closely together as opportunities at the site develop.



Rolls-Royce SMR knows from frequent discussions with regional leaders and stakeholders, such as local councillors, Assembly Members and MPs, in the region that enthusiasm for new nuclear deployment at the two locations is high, but it is incumbent on industry to set out clearly the opportunities in skills and supply chain that are part of new nuclear deployment.

Both locations benefit from existing skills in the area and Rolls-Royce SMR will continue to work with both communities as we look at opportunities in Wales.

The most immediate hurdle to unlocking economic benefits in Wales through new nuclear power is for a decision to be made by the UK Government on the SMR technology down selection process and contracts to be awarded to winners by Summer 2024. Once under contract, Rolls-Royce SMR is able to commit to the necessary increase in direct and indirect employment, and to order Long Lead Items (LLI's) and give the supply chain confidence to invest.

An element of the GBN selection process will include decisions on which sites will be first for deployment – with Wylfa and Trawsfynydd high on the priority list. Once there is clarity on the sites to host SMR's, GBN and developers will need to initiate work at those sites, creating jobs immediately through the preparation and planning processes that will be required to ready the sites for SMRs and launch the important public engagement processes.

### **What can be done to ensure that any new nuclear projects maximise local employment and local or Wales-based supply chains?**

We know that Wales already possesses outstanding manufacturing capabilities, and its rich history in nuclear power and industrial processes, such as steel, is incredibly attractive to us at Rolls-Royce SMR, given the associated expertise and skills that have remained in Wales as a result.

To support the modularisation of our project – where the majority of our components will be built in factories and then transported to site – we have shortlisted three sites as potential locations for our first factory. One is in Deeside in North-East Wales.

To maximise local employment and supply chains, we are aiming for up to 80% UK content for our UK fleet. For reference, the offshore wind sector is targeting 60% UK content by 2030. Achieving this figure will be a challenge but we are committed to maximising use of the UK supply chain wherever possible.

RR SMR has signed a fuel design agreement with Westinghouse which will stimulate economic activity at the Springfields site, ensuring that nuclear development work is maintained in the UK and strengthened through our business.

As part of our commitment to maximise UK involvement in our nationally significant project, we launched a supply chain portal in September to help us identify the UK companies to support the delivery of a fleet of Rolls-Royce SMR.

The majority of materials and expertise that make up a nuclear power plant are not specific to nuclear – from steel and cement to construction and logistics, our supply chain portal will help



connect us to companies outside of the existing nuclear supply chain and in regions where the nuclear industry isn't traditionally based.

Developing our skills programme is at the heart of what we do at Rolls-Royce SMR, and from our launch in 2021 we prioritised the retraining and attraction of talent into the business. Last year, we accepted our first cohort of apprentices – half of which are women.

We already invest in sector-wide solutions to help build the skills pipeline including primary and secondary school engagement across the UK to inspire a new generation of nuclear workers, funding for women returners to STEM careers after extended periods of leave and investing in skills bootcamps in key geographical areas – such as Wales – to support the training of mechanical fitters and mechanical, electrical, and commissioning operatives for site assembly.

In the future, Rolls-Royce SMR will also look to provide financial support for undergraduate places in engineering, digital and infrastructure focused courses through bursaries and by providing placements in our programme to university students.

The existing programmes and experience that have been developed alongside previous and current nuclear projects in Wales, at the universities of Grŵp Llandrillo Menai, Bangor and Glyndŵr mean that Wales is well placed to provide training and skills to those that will be required for the development of new nuclear power stations. We will look to support these programmes as our project develops and more skilled workers are needed.

Finally, Rolls-Royce SMR wish to develop local training facilities at each of our SMR sites to ensure we attract and retain local people to work on our SMRs while in operation as well as in assembly.

### **What challenges could current skills shortages pose and how can these challenges be overcome?**

At Rolls-Royce SMR, we understand the skills shortage extends far beyond nuclear, and we regularly engage in monitoring and scenario planning to identify pinch-points for skills in our long-term business strategy. We are actively involved in a number of industry-wide skills groups where knowledge transfer of such data and lessons learned occurs in order to mitigate expected upcoming challenges.

Rolls-Royce plc also sits on the UK Government's Nuclear Skills Taskforce, which is devising a strategy to help identify and fill the skills gap across both the civil and defence nuclear industries, including the development of a long-term pipeline for skilled professional, that will help the sector navigate these challenges.

Past experience in training new generations of nuclear workers, including at educational institutions in Wales, has shown that the demand for skills from nuclear projects can be met with unique and nationally recognised facilities. However, commitments to delivering new training programmes can only be made when Rolls-Royce SMR is under contract to build SMR units and we can recruit and train with the knowledge that there is a long-term commitment to deployment and operation.





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#### **ABOUT ROLLS-ROYCE SMR LTD**

Rolls-Royce SMR Ltd was established in November 2021 to deliver clean affordable energy for all.

The business is capitalised by Rolls-Royce Group, BNF Resources UK Limited, Constellation Group Ltd, the Qatar Investment Authority and through UK Research and Innovation (UKRI) grant funding.

A Rolls-Royce SMR power station will have the capacity to generate 470MW of low carbon energy, enough electricity to power one million homes. It will provide consistent baseload generation for at least 60 years, helping to support the roll out of renewable generation and overcome intermittency issues.

Rolls-Royce SMR will draw upon standard nuclear energy technology that has been used in 400 reactors around the world. Rolls-Royce has been a nuclear reactor plant designer since the start of the UK nuclear submarine programme in the 1950s.

Rolls-Royce SMR uses established nuclear technology and know-how to offer a low cost, deliverable, global and scalable and investable solution, that can be rolled out around the world.



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