

Written evidence submitted by the Energy Industries Council (EIC)

The Energy Industries Council (EIC) is a non-profit trade association for the energy supply chain, working to advance the interests of its members across all energy sectors. The EIC has a global membership of over 800 companies and holds offices in London, Dubai, Houston, Kuala Lumpur and Rio de Janeiro.

EIC members in Wales work across the project lifecycle and all energy sectors. We currently have 20 members working in the nuclear industry in Wales. The work members are involved in cover electrics and instrumentation, cyber and security systems, scaffolding, containment system fabrication and equipment rental and supply - among other areas.

What role can, or should, nuclear power play in achieving net zero and UK energy security?

The members we consulted with view nuclear as playing an essential part in the energy mix and reaching net zero and UK energy security, primarily because of their ability to act as a baseload for the transition. This is because nuclear power plants can produce, at the maximum power output, more often than any other energy source, with a high-power output relative to the land they require. Nuclear is also carbon-free. For example, the European Union has recently classified nuclear energy as “sustainable” in its Taxonomy Regulation. The policy direction signalled by the government in the Energy Security Strategy and subsequent Energy Security Bill will push forward with the ambition to realise 24GW by 2050, or up to 25 per cent of the UK’s electricity demand, including progressing up to eight projects this decade.

Earlier this year, France committed to developing up to 14 new reactors to power the country's transition away from fossil fuels. Nuclear power already covers 70 per cent of France’s electricity needs.

There is arguably room to increase targets and aim to deliver earlier – similar to France. Modelling by the Energy Systems Catapult has shown that the optimal way to net-zero includes up to 50 per cent of nuclear by 2050 – potentially up to 40GW of capacity.

What are the main challenges to delivering the UK government’s commitment to bring at least one large-scale nuclear project to the final investment decision by this parliament?

EIC members responded with two views on this. The first was around the political will to deliver a large-scale nuclear project to reach a final investment decision (FID). There is concern that with competing demands and requests on the government more nuclear investment will not be as palatable as it is now. Therefore, signals that this will continue regardless would benefit the supply chain and our members in Wales.

The second view, linked to that above, was around the execution of the delivery. Both investors and developers need to be confident in the project's viability from costs to timescales, and this certainty is key for the supply chain. Our data shows that our members are still primarily positioned in oil and gas but have sections of their business invested in nuclear, renewables and other areas.

Given the current environment of high margins in oil and gas, low margins in renewables and an unclear delivery plan for nuclear, members are reverting to their crucial oil and gas markets.

For there to be a viable supply chain existing within nuclear, we need to move at pace to ensure we start scaling up now. We in the UK can deliver a large-scale project, but until we are clear on the capacity and filling those gaps as a matter of urgency, this could jeopardise the ambition.

How important is the financial model to ensuring a successful nuclear project, and is the regulated asset base (RAB) model the best one to deliver this?

The EIC responded to the initial RAB consultation and gave evidence at the committee stage. Please find attached a copy of our submission to the consultation for your information.

In short, on behalf of our members, we argued that the RAB model was the only one which would allow for a successful nuclear project being realised in the UK and that, compared to other models, was best placed. The scale of investment required renders it essentially the only workable model, which will also allow the UK supply chain to grow its share of work and involvement in this area.

The RAB model shares the costs of new-build nuclear projects with suppliers and consumers, as opposed to the Contracts for Difference (CfD) model, which establishes an electricity "strike price" - paid to the developer when the power plant comes online.

Our members stated that the RAB model is crucial to a successful nuclear project and that sharing costs across multiple actors would help widen the pool of private global investors and stimulate domestic investor support, thus lowering reliance on overseas investors in new-build nuclear projects. It would also allow for lower financing costs and the high "strike price" relative to wholesale energy prices established under a CfD would ultimately benefit the consumer.

Hinkley Point C went under two years of complex negotiations to reach £92.50 per megawatt hour as its "strike price" in 2013. The National Audit Office portrayed the "strike price" of £92.50 set as "high cost and risky in a changing energy marketplace." The price was around double the wholesale market rate in 2013. EDF was thought to have started deliberations with the government asking for a figure of £100, with the Treasury asking for £80. A RAB funding model would minimise the risk of delays emanating from discussions of this kind, lower the financial burden on the developer, and benefit the consumer.

What practical steps can the UK Government take to support the nuclear industry in developing a range of nuclear technologies, including small modular reactors?

A point that our members repeatedly raised was the need for competition, and the inclusion of many market actors, in developing a range of nuclear technologies, including Advanced Modular Reactors (AMRs) and Small Modular Reactors (SMRs). One member raised the example of Canada and the scale of activity they are pursuing in developing SMEs. For

instance, Saskatchewan, Ontario, New Brunswick and Tennessee Valley Authority (TVA) have chosen GE-Hitachi as small modular nuclear reactors (SMRs) supplier. At the same time, Ontario has signed with X-energy to deploy SMRs for industrial applications. ARC Clean Energy Canada has also partnered with Canadian Nuclear Laboratories (CNL) to deliver a technology demonstration of the fuel fabrication process. Therefore, unless we take practical steps, we will fall behind, including on the potential export market, as others capitalise.

In the UK, a lot of funding has been announced, with £385 million in the Advanced Nuclear Fund (ANF). However, we need market players to keep our environment competitive, and the RAB model moves us in the right direction – opening up investor interest.

There needs to be clear dialogue across all energy technologies as to which can be supported by government assistance, such as UKEF funding, education calls, sector supportive roadmaps, etc. Clarity is key; despite changing priorities and targets and upcoming COP events, the industry must have assurances that any strategy will be pursued.

According to members, practical steps the UK Government could take include continuing to support the work around STEM, noting the Green Jobs Taskforce and the Nuclear Skills Strategy. Focussing on the jobs and skills required by the nuclear industry to deliver and identifying what skills will be needed for the longer term, will provide a roadmap to the industry that shows how government and industry can work together to enable the workforce of tomorrow today. We need to move at pace; therefore, properly assessing the gaps and needs now is key to delivering on time.

What is the potential economic impact for Wales of a new nuclear power station at Wylfa?

Members were optimistic about the potential economic impact of a new nuclear power station for Wales. They argue it would be a stable employer that provides a generation of skilled jobs and builds a supply chain around it. Building up the existing supply chain with a local footprint also helps with the export potential and the ability to grow globally.

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