

Press release: Industry experts assemble in bid to make cutting-edge nuclear technology a reality

- Around 200 industry experts gather at first ever small nuclear reactor (SMR) conference to explore the investment opportunities of SMRs
- smaller nuclear reactors could usher in a new era of nuclear power, helping to keep nuclear competitive as part of the government's modern Industrial Strategy
- £32 million scheme to launch in weeks to test new technologies to get them to market

Experts from across the finance, nuclear, construction and manufacturing sectors assembled in Coventry this week (Monday 5 and Tuesday 6 November 2018) to explore taking smaller nuclear reactors from concept to construction.

The cutting-edge Manufacturing and Technology Centre (MTC) in Coventry will host around 200 delegates from across the UK to discuss the commercialisation of small modular nuclear reactors – innovative small nuclear power stations that could radically reduce the costs associated with the nuclear sector. The first small reactors could be built as soon as 2030, with potential for exports worldwide.

To help commercialise these revolutionary reactors, Nuclear Energy Minister Richard Harrington today (Tuesday 6 November) announced the next crucial steps, including:

- inviting developers to submit design proposals to identify potential risks with proposals early on, reducing investment risks for potential backers
- setting out how a £32 million Advanced Manufacturing and Construction Programme will allow companies to bid for funds to test new technologies, ironing out potential flaws before they start producing at scale.

Nuclear Energy Minister Richard Harrington said:

Hosting this first ever conference, bringing together more than 200 influencers from across the industry, demonstrates our commitment to enhancing our world-leading nuclear sector.

Increasing competitiveness both nationally and regionally in the sector is part of our modern Industrial Strategy, and this summit could help UK industry seize the global challenge of taking this new generation of new nuclear power from concept to construction.

Delegates at this first-ever government SMR conference will discuss the investment opportunities of small reactors, as well as seeing working examples of the technology in practice and attending a series of networking events workshops and keynote speeches.

Clean, secure nuclear energy already provides a reliable source of low-carbon electricity for our economy: in 2016, nuclear energy provided 20% of our electricity in the UK, as well as providing the reliable bedrock upon which other clean sources such as renewables can thrive. These new small reactors, which can be built in factories off-site, could be placed on a footprint similar in size to a football stadium and add to the UK's diverse low-carbon energy mix.

Earlier this year, the [Expert Finance Working Group](#) presented its findings to government about how SMRs could be financed, laying the groundwork for the sustainable environment needed for small nuclear technologies to come forward. The Group reported that the UK could be well placed to develop these "First of a Kind" small reactor projects and that they could be commercially viable propositions.

These ground-breaking technologies have the potential to deliver some of the key objectives of the government's modern [Industrial Strategy](#) and [Nuclear Sector Deal](#), namely meeting the commitment from industry to reduce the cost of new nuclear build projects, as well as unlocking vast growth opportunities for a thriving supply chain that supports small nuclear projects in the UK.

Fiona Reilly, chair of the independent Expert Finance Working Group, said:

I am delighted to see BEIS delivering on its commitment made in the sector deal to bring together vendors, utilities and energy intensive users at this event at this important time for the UK nuclear industry. Building on the trust and confidence in the UK market, this crucial event allows the opportunity for the finance sector and other stakeholders to understand the features of small nuclear.

These special features, innovative designs deploying truly modular factory construction, when taken together with the market framework envisaged by the Expert Finance Working Group, could result in these stakeholders, and particularly the finance sector coming together to develop credible commercial propositions

Tom Greatrex, Chief Executive of the UK's Nuclear Industry Association said:

Small modular reactors have the potential to play an important role as one element of the low carbon power supply we will need to power homes, businesses, cars, schools and hospitals. They are complementary to both large scale, secure and reliable nuclear power plants and intermittent and variable wind and solar power. With the UK's withdrawal from the European Union fast approaching,

the future opportunity to export UK based technology to international markets, also make smaller reactors worthy of serious interest from the UK government.

Andrew Storer, Chief Executive Officer of the Nuclear AMRC, said:

We're pleased to support this important event and help government and industry realise the UK's ambitions for the nuclear sector. The advanced manufacturing technologies we're developing at the Nuclear AMRC will play a vital role in ensuring that new reactor designs are manufactured to cost and schedule, enabling the UK to take a global lead in commercialising small reactors, with huge opportunities for companies across the country.

At the Nuclear AMRC, we're already working with around 1,000 manufacturers across the UK to help them compete in the worldwide nuclear sector, and we welcome the government's continuing support for the new generation of clean affordable power.

The event in Coventry follows a recent visit from Secretary of State Greg Clark to the Nuclear Advanced Manufacturing Research Centre (Nuclear AMRC) in Sheffield on 25 October 2018, where the Business Secretary met apprentices and staff developing this cutting-edge technology. Prototype SMR parts produced at the Nuclear AMRC as part of collaborative research with Sheffield Forgemasters and international partners will be exhibited at the conference in Coventry, showcasing local talent and aspiration to be part of this UK small nuclear revolution.

Notes to editors

1. In June 2018 the government launched the Nuclear Sector Deal outlining its shared ambition for the UK nuclear industry in the UK as part of the modern Industrial Strategy.
2. The deal announced an ambitious new framework for Small Modular Reactors (SMRs) to enable the commercialisation of these technologies in the UK and signalled a step up in pace and ambition for advanced nuclear technologies policy. The framework consists of initiatives covering:
 - a. the Advanced Manufacturing and Construction Programme
 - b. the work of the UK Regulators to further improve the Generic Design Assessment (GDA) process for assessing the safety, security and environmental acceptability of new nuclear reactor designs
 - c. financing, including the work of the Expert Finance Working Group
 - d. development of the SMR supply chain
 - e. the Advanced Modular Reactor (AMR) Competition

f. development of the siting and land access process for SMRs

3. Small Modular Reactors (SMRs) are part of the advanced nuclear technology sector which covers a range of new innovations under development. Modular Reactors are smaller than conventional nuclear power station reactors and are designed so that much of the plant can be built in a factory and transported to site for construction. They usually fall into 2 categories – either water-cooled reactors similar to existing nuclear power station reactors but on a smaller scale (known as SMRs), or Advanced Modular Reactors (AMRs) which use new cooling systems or fuels and potentially offer new uses for nuclear energy.

4. In the Nuclear Sector Deal, government committed to facilitating an event to bring together vendors, utilities, energy intensive users and the finance sector to further develop credible commercial propositions that could be financed by the private sector. The Commercialisation of Small Nuclear in the UK event is the fulfilment of this commitment.

5. The UK Nuclear Regulators are:

- the Office for Nuclear Regulation (ONR)
- the Environment Agency (EA)
- Natural Resources Wales (NRW)

They will commence Generic Design Assessment (GDA) of new small reactors next year. With the government expectation that all future designs will go through this process, all interested parties will be able to register interest this year with BEIS, and applications for GDA entry will be accepted for review by government from early next year – crucial next steps on this journey.

6. The £32 million Advanced Manufacturing and Construction Programme was announced in the Nuclear Sector Deal. It comprises up to £20 million of government funding, intended to leverage at least £12 million from industry. Government is commencing immediately on a process to work with the sector at all levels to develop the programme and mutually beneficial terms for the grant calls. Dependent upon the progress of that work, we will aim to provide more detail on the grant call and launch a competitive process before the end of the year. The programme will be open to all parts of the sector – nuclear new build, decommissioning and advanced nuclear. Cutting edge manufacturing techniques, modularisation and factory build are key to making small reactors cost effective. Such techniques are being actively developed and demonstrated in places like the MTC and the Nuclear AMRC. But – again for the first time – we will be inviting nuclear companies to commission and make real components (to nuclear regulatory standards) using these techniques to prove the contribution they can make to cost savings (and give further confidence to potential investors).

7. About the Nuclear AMRC

The [Nuclear Advanced Manufacturing Research Centre](#) helps UK manufacturers win work in the nuclear sector. It works with companies of all sizes to develop new technical capabilities, raise quality and reduce risk. The Nuclear AMRC

is backed by industry leaders and government, and managed by the University of Sheffield. It is part of the High Value Manufacturing Catapult.

8. Find out more about the [independent Expert Finance Working Group](#)

9. More detail about the [UK Government's support for advanced nuclear technologies](#)

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