UK energy

Downing St considers £2bn support for mini nuclear reactors

Consortium wants to build up to 16 generators to help UK meet carbon emissions targets

The first SMR is expected to cost £2.2bn and be online by 2029 © Rolls-Royce

Jim Pickard and **Peggy Hollinger** in London 14 HOURS AGO

Downing Street is supporting plans to spend up to £2bn of taxpayers' money on a new generation of mini nuclear reactors to help keep the lights on while hitting the UK's stringent carbon emission targets.

A nine-member consortium led by engineering companies Rolls-Royce, Laing O'Rourke and Atkins wants to build up to 16 small modular reactor (SMR) power stations by 2050.

Government and industry figures confirmed that a pledge of £1.5bn-£2bn is being discussed which could even see taxpayers acquire an equity stake in the programme. However, discussions are still ongoing and any final decision will be subject to the Treasury's current multiyear spending review, which is due later this year.

The government could also commission the first mini power station, giving confidence to suppliers and investors.

The consortium, which also includes the National Nuclear Laboratory, will seek additional funding of at least £2bn, including from private investors and the capital markets.

Support for SMR technology is expected to form part of Boris Johnson's "10-point plan for a green industrial revolution" which he will set out later in the autumn. The prime minister will also signal greater support for technologies such as carbon capture and storage, and using hydrogen as vehicle fuel.

The initiative comes as the government's more conventional nuclear programme is mired in setbacks, with ministers increasingly wary of offering overly generous subsidies to operators.

The first of a generation of new nuclear reactors, at Hinkley Point in Somerset, is late and over budget. Meanwhile, foreign investors have pulled the plug on proposed reactors in Anglesey and Cumbria.

The state of the nuclear programme has raised serious questions over the UK's ability to reach its net zero carbon emissions target by 2050.

Under the plans being considered by Number 10, the small modular reactors would be manufactured on production lines in central plants and then transported to sites for assembly.

Each mini power station would operate for up to 60 years, providing 440MW of electricity per year — enough to power a city the size of Leeds.

The government's support "should deliver sufficient cash to get the consortium through building the factories and well on the way to construction of power stations prior to finding more money from other sources," said one person with knowledge of the situation.

The first SMR is expected to cost £2.2bn and be online by 2029, with costs decreasing after five are built to about £1.8bn each.

The project is expected to draw in some of the UK's oldest industrial names, including Sheffield Forgemasters and British Steel, which will be suppliers to Rolls-Royce and others.

It would give vital support for the strategy of Rolls-Royce, a prominent UK manufacturer, of developing new revenue streams to reduce its reliance on the civil aerospace sector, which has been devastated by the Covid-19 pandemic.

The consortium is expected to finalise the SMR design by April next year, when it hopes to launch the four-year licensing process. During that time it hopes to begin recruiting employees for the business, and identifying the sites for powers stations and the factories to build the components and modules for the SMRs.

The business department has already pledged £18m towards the consortium's early-stage plans.

Ministers have frequently voiced support for the SMR programme in recent months.

The business department said: "Nuclear power will play a key role in the UK's future energy mix as we transition to a low-carbon economy, including through our investments in small and advanced modular reactors."