

News

Rolls-Royce SMR faces financial problems

Traceyhoney March 3, 2023

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UK-based Rolls-Royce SMR says its £500m (\$600m) small

modular reactor (SMR) programme will run out of cash by the end of 2024, Reuters has reported. Alastair Evans, Government & Corporate Affairs Director at Rolls-Royce SMR noted: "We aren't asking the government to make an order (for the nuclear units) today but we need to start negotiations on a deployment plan by the middle of this year. We are facing a cliff edge, by December 2024 the money will have run out." This would put at risk UK government plans to use SMRs to boost energy security and achieve climate targets.

The 470 MWe Rolls-Royce SMR design is based on a small pressurised water reactor. The design was accepted for Generic Design Assessment review in

March 2022 and Rolls-Royce SMR expects to receive UK regulatory approval by mid-2024. A Rolls-Royce-led UK SMR consortium aims to build 16 SMRs. The consortium – which includes Assystem, Atkins, BAM Nuttall, Jacobs, Laing O'Rourke, National Nuclear Laboratory, the Nuclear Advanced Manufacturing Research Centre and TWI – expects to complete its first unit in the early 2030s and build up to 10 by 2035.

Rolls-Royce's SMR development business received a commitment of £210m from the UK government in 2021 but talks on how the projects would be funded are yet to start. Rolls-Royce's new CEO Tufan Erginbilgic said recently that there was a sense of urgency in its engagement with government. "We built a capable team (and) without any project, sustaining that team will be a big challenge," he told reporters after the group published full-year results. He noted that it was vital to move quickly, given that rival companies were developing similar technology.

"It is important that we engage therefore with the UK government urgently, and for a project that we can deploy as soon as possible," he said. Rolls Royce and shareholders in the SMR business – advisory firm BNF Resources Ltd, US Energy company Constellation and Qatar Investment Authority have invested a total of around £280m.

This and the government money have been used to build the business, which employs some 600 staff across Derby, Warrington and Manchester. The funds have enabled it to start the regulatory process to approve the reactor design and identify sites for plants and factories. In November 2022, Rolls-Royce

identified four sites with the potential to deploy multiple SMR units: Trawsfynydd (requiring agreement with Nuclear Decommissioning Authority (NDA) – and the Welsh Government); Sellafield (NDA land availability to be confirmed); Wylfa-South (requiring agreement with Horizon Nuclear Power); and Oldbury-North (also requiring agreement with Horizon Nuclear Power).

Rolls-Royce hopes to build the reactors in UK factories. In July 2022, the company announced six potential locations for the factory, shortlisted from more than 100 submissions from local enterprise partnerships and development agencies. They were: Sunderland in Tyne and Wear, Richmond in North Yorkshire, Deeside in Wales, Ferrybridge in Yorkshire, Stallingborough in Lincolnshire and Carlisle in Cumbria. David White, newly appointed Chief Operating Officer of Rolls-Royce SMR, said another two locations – Shotton in Deeside (Wales) and Teesworks in Redcar (North East) – had been added to the list.

Image: Artist's impression of the inside of the Rolls-Royce SMR building (courtesy of Rolls-Royce)

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