



Department
of Energy &
Climate Change

Early Market Engagement Announcement

SMR Techno-Economic Assessment

March 2015

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Background

The Nuclear Industrial Strategy, published in 2013, set out the Government's interest in the potential benefits offered by Small Modular Reactors (SMRs). The Government also recognises that there may be long-term value in SMR technology, in particular its potential for shorter deployment times and to reduce the costs of nuclear power for energy consumers, as well as presenting a possible area of high value opportunity for UK industry. However, SMRs are in the early stages of development and there are no commercially operational examples that can be used to validate their potential.

To begin building an evidence base to support policy decisions on SMRs, in early 2014 the Government commissioned a feasibility study to assess the technical, economic and commercial case for the deployment of SMRs in the UK. The study was published by the National Nuclear Laboratory on 3 December 2014 and indicated that SMRs were potentially deployable within a 10 year timeframe and offered the possibility for the UK to engage in collaborations with SMR vendors and UK industry. However, the study also concluded that further detailed technical analysis of specific SMR designs would be needed to inform any policy decision by the UK Government and support any potential investment decisions.

The Government welcomed the findings of the study and accepted the recommendation for further work. DECC are therefore undertaking a further deeper financial and technical analysis to establish a robust evidence base to inform policy and investment decisions.

Current Project Status

Building on the initial evidence presented by the NNL's SMR feasibility study, we are taking a phased approach to this process.

The first stage is a specification study which is intended to inform the key parameters of a future possible techno-economic assessment that could be used to assess SMRs and the various designs. This study has been commissioned by DECC and we have appointed independent experts to take this forward.

This specification study is intended to inform:

- The key evidence criteria that could be used to evaluate whether SMRs have a role in the UK.
- The format and extent of the technical, economic and regulatory evidence required to support the assessment. Evidence requirements will be tailored to inform any future Government decision and will need to be practical and achievable.

It is expected that the specification development study will conclude in Spring 2015.

Next Steps

Building on the specification study, DECC is considering commissioning a techno-economic assessment, to deliver the necessary evidence base to inform any future Government policy

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decision on the development and deployment of SMRs within the UK. The assessment would also inform any decision on the appropriate commercial approach to delivering SMRs in the UK. It is expected that this study will require various levels of engagement with SMR vendors. The precise format, scope and outputs of such an assessment would be informed by the specification study.

DECC is looking to issue an Invitation to Tender in Quarter 1 2015 to appoint an independent expert to manage this study, with a current expectation that such a techno- economic assessment project would commence in May 2015 and conclude by March 2016.

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3 Whitehall Place

London SW1A 2AW

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