



Department  
of Energy &  
Climate Change

# Small Modular Reactors

Competition: Phase One

Guidance

17 March 2016

© Crown copyright 2016

URN 16D/045

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence.

To view this licence, visit [www.nationalarchives.gov.uk/doc/open-government-licence/](http://www.nationalarchives.gov.uk/doc/open-government-licence/) or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: [psi@nationalarchives.gsi.gov.uk](mailto:psi@nationalarchives.gsi.gov.uk).

Any enquiries regarding this publication should be sent to us at [smrteam@decc.gsi.gov.uk](mailto:smrteam@decc.gsi.gov.uk).

# Contents

|  |    |
|--|----|
| 1. Background and summary .....                  | 4  |
| The Department of Energy and Climate Change..... | 4  |
| Nuclear innovation.....                          | 4  |
| Small modular reactors.....                      | 4  |
| SMR competition launch.....                      | 5  |
| 2. Procedure and timings .....                   | 7  |
| Eligibility criteria.....                        | 7  |
| Expression of Interest questionnaire .....       | 7  |
| Phase One dialogue .....                         | 7  |
| Timetable.....                                   | 8  |
| Completing your response.....                    | 8  |
| Submitting your response.....                    | 9  |
| Confidentiality and Freedom of Information.....  | 9  |
| Notification.....                                | 10 |
| 3. Further information.....                      | 11 |
| The opportunity .....                            | 11 |
| Working arrangements .....                       | 11 |
| Consortia.....                                   | 11 |

# 1. Background and summary

## The Department of Energy and Climate Change

- 1.1. The Department of Energy and Climate Change (DECC) leads the Government's efforts to ensure that the UK's families and businesses have access to secure, affordable and clean energy now and in the future.
- 1.2. The Government is committed to meeting our carbon target of at least an 80% emissions reduction by 2050, as set out in the Climate Change Act, while doing so in a way that keeps the cost of action as low as possible, to ensure value for money. We are also committed to securing ambitious international action on climate change and managing the UK's energy legacy safely and responsibly<sup>1</sup>.

## Nuclear innovation

- 1.3. Innovation has a key role to play in developing cheaper clean technologies. DECC's innovation programme has been more than doubled to over £500m for this Parliament, providing start-up funding for promising new low carbon technologies and research. DECC is taking a more targeted approach to innovation spend, ensuring that we focus on those technologies that can make the greatest contribution to our low carbon and security of supply objectives, and which can offer economic opportunities to the UK.
- 1.4. As part of this, the Government has announced that DECC will invest £250m in an ambitious nuclear research and development programme, enabling the UK to be a global leader in innovative nuclear technologies. This includes a competition to identify the best value small modular reactor (SMR) design for the UK.

## Small modular reactors

- 1.5. The Government's interest in the potential benefits offered by SMRs was first set out in the Nuclear Industrial Strategy, published in 2013. In particular, SMRs may have the potential to enable shorter deployment times, reduce the costs of nuclear power for energy consumers, and present a possible area of high value opportunity for UK industry. However, SMRs are in the relatively early stages of development and there are no commercially operational examples that can be used to validate their potential. They should be seen as a potential complement to the Government's large-scale nuclear programme.
- 1.6. 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 in December 2014<sup>2</sup>. This indicated that some SMRs were potentially viable within a 10 year timeframe and that they offered the possibility for the UK to engage in collaborations with vendors and UK industry. However, the study

---

<sup>1</sup> See DECC's Single Departmental Plan at: <https://www.gov.uk/government/publications/decc-single-departmental-plan-2015-to-2020/single-departmental-plan-2015-to-2020>

<sup>2</sup> See: <http://www.nnl.co.uk/media/1627/smr-feasibility-study-december-2014.pdf>

also concluded that there was a need for further detailed technical analysis of specific SMR designs.

- 1.7. The Government welcomed these findings and accepted the recommendation for further work. Starting in May 2015, DECC commissioned an in-depth Techno-Economic Assessment (TEA) to contribute to the SMR evidence base. The final conclusions of this work will be used to inform the development of Government policy and the design of future competition phases.

## SMR competition launch

- 1.8. This *Guidance* launches Phase One of the competition referred to in paragraph 1.4. The objective of Phase One is to gauge market interest among technology developers, utilities, potential investors, funders and other interested parties in developing, commercialising and financing SMRs in the UK. The Government is keen to ensure that any subsequent stages of the competition are informed by participants' views on how to secure commercial deployment of SMRs, and on potential timeframes for deployment. This phase of the competition, which will be the first opportunity to engage in discussions with Government, will be a structured dialogue between Government and participants, including bilateral discussions with DECC. We intend to communicate further details about the format of the Phase One dialogue to participants in May.
- 1.9. In parallel with the Phase One dialogue, DECC intends to develop an SMR Roadmap, which will summarise the evidence, set out the policy framework and assess the potential, for one or more possible pathways for SMRs to help the UK achieve its energy objectives, while delivering economic benefits. The Roadmap will also include details of the process that Government will use to identify suitable sites or types of sites, and any work that the Government will undertake with the Office for Nuclear Regulation to ensure that appropriate provision is made within the process for regulatory approval, including through Generic Design Assessment.
- 1.10. We intend that the Roadmap will be published after the close of Phase One, in parallel with publication of plans for the next steps in the SMR competition.
- 1.11. Eligibility for the Phase One dialogue will be determined using a set of criteria, as described in paragraphs 2.1 to 2.3. We are also asking you to submit an Expression of Interest (EOI), as described in paragraphs 2.4 to 2.5. Please note that this EOI will not be used for determining eligibility. If you meet the eligibility criteria, the content of the EOI will inform discussions during the Phase One dialogue. The full list of the documents you need to submit in your response is listed in paragraph 2.9.
- 1.12. While submitting the documents listed in paragraph 2.9 is a requirement if you wish to be considered for the Phase One dialogue, no further commitment is required at this stage.
- 1.13. **If your organisation is likely to have an interest in entering into any subsequent phases of the competition, even if you do not yet have full answers to all the questions in the EOI, you are strongly encouraged to respond to this opportunity. Providing you are verified as eligible, your participation in the Phase One dialogue will enable you to discuss your proposal with Government. If you do not participate,**

**then we may exclude you from any subsequent phase of the competition or from any other Government process in relation to SMRs. We would also draw your attention to paragraph 3.5 below, which relates to any changes that occur in consortium arrangements.**

- 1.14. We envisage that this first phase of the competition will last until autumn 2016, with the next steps informed by the output of Phase One, and further policy analysis, including the final conclusions of the TEA.

## 2. Procedure and timings

### Eligibility criteria

- 2.1. When determining which technology developers, utilities, potential investors, funders and other interested parties to engage with in the Phase One dialogue, DECC will consider whether they have met all of the eligibility criteria specified. These criteria have been formulated to ensure that only credible organisations are accepted into the Phase One dialogue. There will be no weighting applied to the criteria and they should be regarded as equally important. The list of criteria can be found in the separate 'Eligibility Criteria Checklist, Expression of Interest and Declaration' Document ( page 4)
- 2.2. DECC may undertake checks on all organisations that respond to this exercise. These may include examining information filed on the Companies House database, or other publicly available information. Where such information is not available, other information may be requested to enable an appropriate review to be undertaken.
- 2.3. Please note that, for any subsequent phase of the competition or for any other competitive process in relation to SMRs, DECC may apply different (including more stringent) eligibility and evaluation criteria.

### Expression of Interest questionnaire

- 2.4. The questions on the EOI form have been formulated to elicit information to assist the Government in the further development of its SMR policy and subsequent stages of the competition, as described in paragraphs 2.6 to 2.7 below. Unlike the eligibility criteria, answers submitted in response to the EOI have no role in determining which organisations enter the Phase One dialogue, and will not be used to evaluate or assess your project in Phase One or any subsequent phase of the competition. Please answer only those EOI questions applicable to you.
- 2.5. The information you provide on the EOI questionnaire does not preclude changes in any element of your plans prior to the launch of any subsequent selection or evaluation process. DECC will not regard any information provided as warranted or making any legal representation.

### Phase One dialogue

- 2.6. Following verification of participants' eligibility, DECC intends to engage in a structured dialogue with eligible technology developers, utilities, potential investors, funders and other interested parties, which will include bilateral discussions with DECC. The purpose of this dialogue will be to build on the outcome of the TEA to inform the development of Government policy and the design of future competition phases by:
  - gathering and examining more detailed information on the status of specific SMR designs;
  - further exploring the potential for SMRs to offer opportunities to the UK;

- improving our understanding of the progress SMR developers have made in attracting potential investment and in mapping out a route to commercialisation; and
- gauging the need for Government support for the development of SMRs in the UK, and testing industry appetite for the level and type of support Government may be able to offer.

2.7. As a guide, depending on the number of participants, and the rate at which progress is made in resolving outstanding issues for DECC's consideration of SMRs, we anticipate the Phase One dialogue concluding in autumn 2016.

## Timetable

2.8. The timetable for the Phase One dialogue is shown below. DECC reserves the right to vary this timetable. Any variations will be published on the relevant page of the DECC website and circulated to all companies who have registered an interest in notifications.

| Timeline  | Date                                   |
|---|--|
| Publication of opportunity to engage in Phase One dialogue.                       | 17 March 2016                          |
| Deadline for questions  | 18:00 British Summer Time 1 April 2016 |
| DECC responses to questions published   | 13 April 2016                          |
| Deadline for receipt of responses (i.e. all the items specified in paragraph 2.9) | 18:00 British Summer Time 6 May 2016   |
| DECC provides confirmation or rejection of eligibility                            | 23 May 2016                            |
| Phase One dialogue begins   | Late May 2016                          |
| Expected close of Phase One   | Autumn 2016                            |

## Completing your response

2.9. To be considered for the Phase One dialogue, organisations need to respond by submitting the following items, forms for which can be found in the accompanying document on the relevant page of the DECC website:

- completed Expression of Interest questionnaire;
- completed Declaration Sheet;
- any further material you wish to provide (optional), up to the maximum page limit.

The maximum page limit for your response, including all the documents listed above and any annexes, is 25 pages.

2.10. **The deadline for your completed response to be returned to DECC is 18:00 British Summer Time on 6 May 2016.**

## Submitting your response

- 2.11. Please **send 3 hard copies** of your response (i.e. all the items specified in paragraph 2.9) **by the deadline stated in paragraph 2.10**, addressed to: SMR Policy Team, Floor 2 Area E, DECC, 3 Whitehall Place, London SW1A 2AW.
- 2.12. Also, please **email** your response **by the deadline stated in paragraph 2.10** to: [smrteam@decc.gsi.gov.uk](mailto:smrteam@decc.gsi.gov.uk).
- 2.13. Please ensure that your response is delivered in accordance with the date and time stated as, if it is not, the Department does not undertake to consider it. DECC shall have the right to disqualify you from the application process if you do not return a fully completed declaration sheet. DECC shall also have the right to disqualify you if it later becomes aware of any misrepresentation in your response.
- 2.14. If you require further information about the application process or the Phase One dialogue, email: [smrteam@decc.gsi.gov.uk](mailto:smrteam@decc.gsi.gov.uk). All questions should be submitted by 18:00 British Summer Time on 1 April 2016. Questions submitted after this date may not be answered. Should questions arise during the application period which in our judgement are of material significance, we will publish these questions (unattributed) on the relevant page of the DECC website with our reply by the end of 13 April 2016. Organisations should then take that reply into consideration when preparing their own responses and we will assume, when reviewing responses, that they have done so.

## Confidentiality and Freedom of Information

- 2.15. It is likely that DECC will wish to publish a list of the applicants who we have verified as being eligible to enter the Phase One dialogue. In your response, please provide a short summary (500 words maximum) of your submission, which is suitable for publication. By submitting your expression of interest, you give your consent for this summary and the identity of the applicant to be published.
- 2.16. The information you provide to DECC will be used by DECC for the purposes set out in this document. Where you provide us with confidential information and identify it as such (in accordance with paragraph 2.18 below), DECC will treat this information as confidential and will not disclose it publicly or to other participants in Phase One, subject to paragraphs 2.17 to 2.19 below.
- 2.17. The Freedom of Information Act 2000 (FOIA) and the Environmental Information Regulations 2004 (EIR) apply to the Department. You should be aware of the Department's obligations and responsibilities under FOIA or EIR to disclose, on written request, recorded information held by the Department. Information provided in connection with this exercise may therefore have to be disclosed by the Department in response to such a request. The Department may decide that one of the statutory exemptions under the FOIA (e.g. potential to prejudice commercial interests) or the exceptions in the EIR (e.g. commercial confidentiality or intellectual property rights) applies.
- 2.18. **If you wish to designate information supplied as part of your response as confidential, or if you believe that its disclosure would be prejudicial to any person's**

**commercial interests, you must provide clear and specific detail as to the precise information involved and explain (in broad terms) what harm may result from disclosure if a request is received, and the time period applicable to that sensitivity.**

- 2.19. Applicants should be aware that such designation alone may not prevent disclosure if, in the Department's reasonable opinion, publication is required by applicable legislation or Government policy or where disclosure is required by the Information Commissioner or the First-tier Tribunal (Information Rights).

## Notification

- 2.20. Organisations will be informed by email as to whether they have been found to be eligible for the Phase One dialogue.

## 3. Further information

### The opportunity

- 3.1. Nothing in this document should be interpreted as a commitment or representation by DECC that it will provide any support or funding to any competition entrant, or as to its ultimate decision in relation to the competition. DECC reserves the right to withdraw this opportunity without notice and terminate any competition process, and will not be liable for any costs incurred by organisations during any stage of the process. By issuing this invitation the Department is not bound in any way and does not have to accept any application to enter the Phase One dialogue.
- 3.2. The Department reserves the right to amend this guidance document at any time prior to the deadline for receipt of responses. Any such amendment will be numbered, dated and issued by 13 April 2016. Where amendments are significant, the Department may at its discretion extend the deadline for receipt of responses. Subsequently, the Department reserves the right to change the requirements, the procedures and the timescale set out in this document or to reject any or all of the applications, to terminate the dialogue with any or all participants and to re-invite responses on the same or any alternative basis at any time. The Department reserves the right to waive any of the eligibility criteria.

### Working arrangements

- 3.3. Companies that are verified as being eligible to enter the Phase One dialogue will be expected to identify one named point of contact through whom all enquiries can be filtered. A DECC account manager will be assigned to your project and will be the central point of contact.

### Consortia

- 3.4. In the case of a consortium response, only one submission covering all of the partners is required, but consortia are advised to make clear the proposed role that each partner will play in undertaking the Phase One dialogue. We expect the applicant to indicate who in the consortium will be the lead contact for the Phase One dialogue.
- 3.5. DECC recognises that arrangements in relation to consortia may (within limits) be subject to future change. Consortia should respond in line with the arrangements as currently envisaged. Any future proposed change in relation to a consortium must be notified to DECC, so that it can make a further assessment by applying the eligibility criteria to the new information.

© Crown copyright 2016

Department of Energy & Climate Change

3 Whitehall Place

London SW1A 2AW

[www.gov.uk/decc](http://www.gov.uk/decc)

URN 16D/045