**Specification for Assessment of Options to Reduce Emissions from Fossil Fuel Production and Fugitive Emissions**

Tender Reference Number: AG/1118

**Specification of Requirements**

Invitation to Tender for Assessment of Options to Reduce Emissions from Fossil Fuel Production and Fugitive Emissions

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Deadline for Tender Responses: 2nd January at 9am

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# Background

**The CCC and carbon budget advice**

The Committee on Climate Change was set up as part of the Climate Change Act. The Committee is an independent body tasked with providing advice to government on climate change issues, and particularly the setting of carbon budgets for the UK.

The CCC’s advice on carbon budgets is based on detailed modelling of a range of technologies and behaviours that could be deployed across the economy. Using that modelling, CCC has developed scenarios for deployment of technologies to reduce greenhouse gas emissions to 2020, 2030 and 2050.[[1]](#footnote-1) These are intended to demonstrate possible ways in which carbon budgets and the existing 2050 target could be met, estimate the economic cost of doing so, and identify barriers to delivery and consider how these could be overcome.

**Long-term targets advice**

In October, the climate change minister, Claire Perry, asked the Committee to advise on “options for the date by which the UK should achieve a) a net zero greenhouse gas target and/or b) a net zero carbon target in order to contribute to the global ambitions set out in the Paris Agreement”. The request included providing evidence on “how reductions in line with your recommendations might be delivered in key sectors of the economy; and the expected costs and benefits across the spectrum of scenarios in comparison to the costs and benefits of meeting the current target”.[[2]](#footnote-2)

**Reduction of emissions from fossil fuel production and industrial fugitive emissions**

The CCC has not previously undertaken a detailed assessment of options to reduce emissions from conventional fossil fuel production and industrial fugitive emissions. For the purposes of CCC analysis this category is defined to include:

* all IPCC emissions categories of energy supply, apart from power generation and refining.[[3]](#footnote-3) Among these emissions are those from oil and gas production, methane leakage from the gas grid and coke production.
* carbon dioxide, methane and nitrous oxide emissions, but not F-gas emissions.

Combined, these emissions totalled 25 Mt in 2016.

# Aims and Objectives

The aim of this work is to:

* Update our assessment of the scope to reduce emissions from fossil fuel production and fugitive emissions as part of a cost-effective approach to reducing all UK greenhouse gas emissions.
* Identify emissions sources that are so difficult or expensive to abate that it may be necessary to offset these emissions with greenhouse gas removal options, for the UK to reach net-zero emissions.

The outputs of this work will be used to inform the recommendations in our net-zero report in 2019 as well as our annual progress reports to Parliament in 2019 and our 6th carbon budget advice to Government in 2020.

# Tasks and Methodology

The project should identify ways to abate fugitive industrial emissions and reduce emissions from fossil fuel production; determining the availability, costs and potential rates of uptake of the abatement options; reviewing barriers and opportunities; and projecting future baseline emissions from these sources. These tasks are set out below, but do not necessarily need to be approached separately and may be integrated or reordered.

The applicant’s approach to delivering on the tasks listed below should be set out in the applicant’s bid documentation. *We expect the contractor to set out in their proposal an approach to engage with relevant stakeholders and draw on their expertise.*

**Task 1: Identification of abatement measures**

The project should identify abatement options for all emissions from fossil fuel production and fugitive industrial emissions, where there are feasible abatement options available. To do this, we expect that a careful disaggregation of emissions will be required. This disaggregation should help to clarify:

* which emissions each abatement measure applies to;
* which sources can and cannot be abated, including clarifying which parts of sources cannot be abated.

For emissions where it is found that there are no feasible abatement options, a clear technical reason should be provided. It is important that the description of available abatement options covers all emissions[[4]](#footnote-4) because of our need to consider routes to net-zero emissions. Where emissions cannot be abated from a certain activity, there should be a clear statement of the implications of ceasing or reducing that activity (e.g. in terms of production of fossil fuels in the UK).

The following approaches would be helpful to integrate with other CCC analysis:

* Where emissions result from a heating process, the associated energy use should be identified as belonging to one of a set of cross-sectoral process categories that will be outlined by the CCC.[[5]](#footnote-5)
* Where CCS is an option (such as for natural gas processing), it would be useful if information on the following characteristics could be provided: composition of flue gas, average size of CO2 stream, any information on typical location of sites, whether they are co-located with combustion emissions and potential capture rates.

**Task 2: Determination of technology availability, costs and potential rates of uptake**

For each of the abatement options, the contractor should estimate or collate estimates of:

* The cost of each abatement option in £/MtCO2e
  + The counterfactual of these estimates should also be set out
  + The project should also look to set out how these costs could develop over time and in particular where there is potential for cost reductions.[[6]](#footnote-6)
* Dates when abatement technologies / approaches will be available
* Potential rates of uptake of the technologies i.e. how long it would take to reach full deployment

In areas where the contractor expects there to be important uncertainties, their proposal should set out how this uncertainty would be communicated.

**Task 3: Review of others costs, barriers and benefits**

The project should:

* provide a qualitative assessment of any other costs and benefits that cannot be monetised
* summarise non-financial barriers to uptake of the abatement options and consider how these might be addressed.

We expect this to be a short piece, with less time dedicated to it compared to the other tasks.

**Task 4: Projection of future baseline emissions**

The project should establish projections of future emissions from fossil fuel production and fugitive industrial emissions under at least two scenarios:

* Baseline[[7]](#footnote-7)
* Changing fossil fuel consumption resulting from changing use of fossil fuels in the rest of the economy (there may be more than one variant of this)

The CCC will provide projections on unconventional gas production based on its reports on onshore petroleum.[[8]](#footnote-8)

Ideally this work should also project the emissions intensity of different fossil fuel production over time, which may vary as a function of the level of production from, for example, the North Sea.

At least a first iteration of this task should be undertaken alongside task one to identify emissions sources that are unlikely to exist for long enough to be relevant for consideration.

# Outputs Required, Ownership and Publication

The deliverables from this assignment will be:

* An Excel workbook containing all quantitative data produced, and any analysis used to calculate these outputs, together with an assumptions log and a QA log. It may also be useful to include qualitative data, such as the barriers to uptake of particular abatement options, in this spreadsheet.
* A short guide to how to use the spreadsheet.
* A report describing the methodology, issues and results of the project. This would include the qualitative information relating to the other costs, barriers and benefits of the abatement options.

The outputs should be designed to integrate with existing spreadsheets in use at the CCC.

Where excel models are used to underpin the excel workbook deliverable (listed above) these should be shared, fully unlocked and linked to rest of the excel workbook deliverable, allowing future capability to update assumptions and re-run outputs. In the event of any limitations on sharing, these should be specified as part of the tender.

The report will likely be published on the CCC website.

# Quality Assurance

This project must comply with the ‘CCC – Quality Assurance of Evidence and Analysis’ guidance and bidders must set out their approach to quality assurance in their response to this ITT.

All research tasks and modelling must be quality assured and documented. Contractors should:

* Include a quality assurance (QA) plan that they will apply to all of the research tasks and modelling,
* Specify who will take lead responsibility for ensuring quality assurance and ensure that this responsibility rests with an individual not directly involved in the research, analysis or model development,
* Provide QA log to demonstrate the QA undertaken, including who undertook the QA and the scope, type and level of QA that has been undertaken (e.g. a log entry only stating ‘the data was checked’ will not be sufficient)

Sign-off for the quality assurance must be done by someone of sufficient seniority within the contractor organisation to be able take responsibility for the work done. Acceptance of the work by the CCC will take this into consideration. The CCC reserves the right to refuse to sign off outputs which do not meet the required standard specified in this invitation to tender.

The successful bidder will be responsible for any work supplied by sub-contractors and should therefore provide assurance that all work in the contract is undertaken in accordance with the quality assurance expectation agreed at the beginning of the project.

# Timetable

It is proposed that the timetable will run as follows, but we will consider alternative timetables, ideally subject to meeting the final deadline.

|  |  |
| --- | --- |
| **Date** | **Action** |
| 2nd January, 9am | Deadline for response to ITT |
| 4th January | Interviews |
| 10th / 11th January | Kick-off meeting |
| 12th February | Share interim results with CCC secretariat ahead of secretariat presentation to committee |
| 4th March | Share draft final report with CCC secretariat for comments |
| 13th March | Report finalised |

# Challenges

The timeline for the project is short and the applicant should carefully set out how this short timeline will be managed.

# Ethics

All applicants will need to identify and propose arrangements for initial scrutiny and on-going monitoring of ethical issues. The appropriate handling of ethical issues is part of the tender assessment exercise and proposals will be evaluated on this as part of the ‘addressing challenges and risks’ criterion.

We expect contractors to adhere to the following GSR Principals:

1. Sound application and conduct of social research methods and appropriate dissemination and utilisation of findings
2. Participation based on valid consent
3. Enabling participation
4. Avoidance of personal harm
5. Non-disclosure of identity and personal information

# Working Arrangements

The successful contractor will be expected to identify one named point of contract through whom all enquiries can be filtered. A CCC project manager will be assigned to the project and will be the central point of contact.

# Skills and experience

CCC would like you to demonstrate that you have the experience and capabilities to undertake the project. Your tender response should include a summary of each proposed team members experience and capabilities.

Contractors should propose named members of the project team, and include the tasks and responsibilities of each team member. This should be clearly linked to the work programme, indicating the grade/ seniority of staff and number of days allocated to specific tasks.

Contractors should identify the individual(s) who will be responsible for managing the project.

# Consortium Bids

In the case of a consortium tender, 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 performing the contract as per the requirements of the technical specification. We expect the bidder to indicate who in the consortium will be the lead contact for this project, and the organisation and governance associated with the consortia.

Contractors must provide details as to how they will manage any sub-contractors and what percentage of the tendered activity (in terms of monetary value) will be sub-contracted.

If a consortium is not proposing to form a corporate entity, full details of alternative proposed arrangements should be provided. However, please note CCC reserves the right to require a successful consortium to form a single legal entity in accordance with Regulation 28 of the Public Contracts Regulations 2006.

CCC recognises that arrangements in relation to consortia may (within limits) be subject to future change. Potential Providers should therefore respond in the light of the arrangements as currently envisaged. Potential Providers are reminded that any future proposed change in relation to consortia must be notified to CCC so that it can make a further assessment by applying the selection criteria to the new information provided.

# Budget

The budget for this project is £40,000 to £60,000 excluding VAT.

Contractors should provide a full and detailed breakdown of costs (including options where appropriate). This should include staff (and day rate) allocated to specific tasks.

Cost will be a criterion against which bids which will be assessed.

Payments will be linked to delivery of key milestones. The indicative milestones and phasing of payments can be adjusted and agreed with the contractor and Project Manager. Please advise in your tender response how this breakdown reflects your usual payment processes:

In submitting full tenders, contractors confirm in writing that the price offered will be held for a minimum of 60 calendar days from the date of submission. Any payment conditions applicable to the prime contractor must also be replicated with sub-contractors.

The Committee on Climate Change aims to pay all correctly submitted invoices as soon as possible with a target of 10 days from the date of receipt and within 30 days at the latest in line with standard terms and conditions of contract.

# Evaluation of Tenders

Contractors are invited to submit full tenders of no more than 20 pages (of at least size 10 font), excluding declarations and CVs. Tenders will be evaluated by at least three CCC staff.

CCC will select the bidder that scores highest against the criteria and weighting listed below, see the ITT for further information.

**EVALUATION CRITERIA AND SCORING METHODOLOGY**

|  |  |  |
| --- | --- | --- |
| Criterion | Description | Weighting |
| 1 | **RELEVANT EXPERIENCE / DEMONSTRATION OF CAPABILITY** | 20% |
| 2 | **MANAGING YOUR RELATIONSHIP WITH THE CCC** | 5% |
| 3 | **QUALITY ASSURING THE SERVICES YOU PROVIDE** | 5% |
| 4 | **MANAGEMENT STRUCTURE** | 5% |
| 5 | **PROJECT TEAM – SKILLS AND KNOWLEDGE** | 20% |
| 6 | **METHOD** | 25% |
| 7 | **UNDERSTANDING OF REQUIREMENTS** | 10% |
| 8 | **RISK AND CHALLENGES** | 10% |
|  |  |  |
|  | | 100% |

**Scoring Method**

Tenders will be scored against each of the criteria above, according to the extent to which they meet the requirements of the tender. The meaning of each score is outlined in the table below.

The total score will be calculated by applying the weighting set against each criterion, outlined above; the maximum number of marks possible will be 100. Should any contractor score 1 in any of the criteria, they will be excluded from the tender competition.

|  |  |
| --- | --- |
| **Score** | **Description** |
| 1 | Not Satisfactory: Proposal contains significant shortcomings and does not meet the required standard |
| 2 | Partially Satisfactory: Proposal partially meets the required standard, with one or more moderate weaknesses or gaps |
| 3 | Satisfactory: Proposal mostly meets the required standard, with one or more minor weaknesses or gaps. |
| 4 | Good: Proposal meets the required standard, with moderate levels of assurance |
| 5 | Excellent: Proposal fully meets the required standard with high levels of assurance |

**Structure of Tenders**

Contractors are strongly advised to structure their tender submissions to cover each of the criteria above and supply a price schedule specifying the daily rates (ex-VAT) you will charge for each level of your staff.

**Evaluation for Interviews, if held**

CCC reserves the right to award the contract based on applicants’ written evaluation only if one candidate emerges from the evaluation stage as significantly stronger than the others.

Should interviews go ahead, CCC will shortlist the top three suppliers with the highest marks from the written proposals. Interviews are provisionally expected to be held on 4th January. If this date changes, CCC will notify applicants.

The areas to be covered in the interview, and markings allocated to each topic area will be sent to the shortlisted supplier prior to interview.

Further details of interviews will be sent to successful applicants on selection.

**Feedback**

Feedback scores will be given by email. We are not able to provide detailed feedback to all applicants.

1. See CCC (2015) *The Fifth Carbon Budget* and CCC (2016) *UK Climate Action following the Paris Agreement*. Previous relevant analysis included the 2012 advice on the 2050 target (and inclusion of international aviation and shipping). [↑](#footnote-ref-1)
2. UK climate targets: letter to the Committee on Climate Change (CCC) - 15 October 2018<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/748489/CCC_commission_for_Paris_Advice_-_Scot__UK.pdf> [↑](#footnote-ref-2)
3. This correspond to IPCC emissions inventory codes from 1A1ai through to 2A4d, excluding 1A1ai Power stations and 1A1b Refineries – combustion. We do include the entries ‘Energy Supply, 1A1ai, Miscellaneous industrial/commercial combustion from MSW’ and ‘Energy Supply, 2A4d, Power stations – FGD, Gypsum produced’. [↑](#footnote-ref-3)
4. We may discuss a (low) threshold below which emissions do not need to be considered, such that the sum of all unconsidered emissions is negligible compared to overall industrial emissions. [↑](#footnote-ref-4)
5. These include, indirect high pressure steam, indirect low pressure steam, indirect high temperature heat, indirect low temperature heat, direct high temperature heat, indirect low temperature heat. [↑](#footnote-ref-5)
6. The recent request from Government requested that “[t]he assessment of costs should consider how innovation and global deployment of technologies could impact those costs, either positively or negatively, for the UK - and your assessment of benefits should also consider avoided costs.” [↑](#footnote-ref-6)
7. We define our baseline as the level of greenhouse gases that would be emitted in a scenario where there was no mitigation policy implemented, beyond those that already existed in 2009. [↑](#footnote-ref-7)
8. CCC (2016) *The compatibility of onshore petroleum with meeting the UK’s carbon budgets* <https://www.theccc.org.uk/publication/onshore-petroleum-the-compatibility-of-uk-onshore-petroleum-with-meeting-carbon-budgets/> and

   CCC (2016) *Scottish unconventional oil and gas: Compatibility with Scottish emissions targets*

   <https://www.theccc.org.uk/publication/scottish-unconventional-oil-and-gas-compatibility-with-scottish-emissions-targets/> [↑](#footnote-ref-8)