**Q&A for the Invitation to Tender for Assessing the cost reduction potential and competitiveness of novel UK carbon capture technology**

An Extension has been agreed from 10th November 2016 to the 21st November 2016.

Updates since 2nd Nov 2016 are, inclusion of two unanswered questions (question 1 & 2), and the rewording of question 4, 5 and 7.

1. **Definition of “UK led”**

With the ITT suggesting that the capture technology is “UK led” please can you elaborate BEIS’ definition? Could this be by involvement of UK companies (as principal or on a component; UK ownership of the IP: parent company ownership; or simply intent to deploy in UK projects?

**Response:**

We have not agreed a definition of “UK led”, this will be done with the input of the successful awardee. We anticipate the definition is a technology developer who would be eligible to apply for UK innovation funding as the lead or contributing partner.

1. **Wider-system approaches to carbon capture**

Does the scope embrace wider-system approaches to carbon capture – for example oxy-fuel where the capture is part of a far more complex system design?

**Response:**

The ultimate goal of UK and international efforts is deploy CCS at least cost. In this regard we would accept “UK led” innovation that achieves this, and they would be eligible to be considered in the study. Please note that the scope of the study still does not include innovation in transport and storage.

1. **Engaging with technology developers**

Section 9 of the ITT notes the challenge of engaging technology developers in a study that requires them to provide confidential information such as solvent circulation rates, top-up rates, energy demand and solvent price. Bidder’s experience of working with the supplier of Cansolv (the proposed Benchmark Case noted in Section 4, WP3) is that this data is tightly controlled. Your approach assumes two copies of the final report (with and without confidential data) providing a practical approach, but there is still a risk that technology developers will not be willing to become involved in the assessment, or will demand a significant fee for their involvement.

Has BEIS approached any technology suppliers, either for the benchmark case or for the innovative solutions, to establish their willingness to participate in this study? Please confirm that, if suppliers require payment for providing input into the study, this will be covered by BEIS in addition to our price?

**Response:**

The approach we are taking for this study is quite new to BEIS as in the past we have funded UK innovation projects by assessing the merit of the project in confidence. This study is different as we are assessing UK capture technologies together in a batch, allowing us more opportunity to better understand their merits and how they compare to other capture technology being developed. In effect pre-empting their request for funding, allowing us more time to consider the case for funding their technology in the future.

In this sense we are trying to extract as much information out to allow BEIS to go forward with further innovation funding support, while at the same time trying to share some of the outputs publically to ensure some of our international partners and CCS community can benefit from the work. Similarly if some of this information can be used to help BEIS understand the cost reduction potential of novel capture technology ideally we would like to input this into BEIS modelling: levelised cost of CCS and hydrogen, DDM, UKTM, etc.

For UK technology developers (who wish to apply for innovation funding in the future) we are expecting that they will engage with this study, as it is in their interest to demonstrate the merit of their technology, and this study offers them an opportunity to have a comprehensive techno-economics analysis performed on their technology. What we agree to disseminate will have to be determined with the developers.

For technology developers that are being used as a comparator for the UK technology, for example Shell Cansolv. We would like to hear your views on how this is best approached, and what might be possible if the supplier has already paid the fee for access to their solvent details because they have performed similar analysis, for say IEAGHG.

BEIS has good experience working with companies developing innovative products. But we would like to hear your experience and come to a common understanding about what conditions might be required to work with technology developers. Hence in your bid we would like you to explain your view on how best to approach this, and where necessary give an estimate on what fees might need to be paid and what condition on public dissemination might be required.

1. **Engaging with technology developers (2nd question)**

BEIS has identified in section 9 of the ITT a challenge for the study will be that information on capture technology is company confidential and hence technology developers will be reluctant to share this information.  We note that to mitigate against this two reports will be produced, one of which will be published on the BEIS website (with commercially confidential data omitted) and the other for internal use (to include commercially confidential data).  We would like to ask the following questions in relation to confidentiality for the study and being able to provide assurances to technology developers that their commercially confidential information provided for the study would be kept confidential by BEIS:

a.      We anticipate that in approaching technology developers to request information on their capture technologies we might be required to enter into a confidentiality agreement with the technology developer.  Would BEIS also be prepared to enter into a confidentiality agreement with the technology developer if requested to cover its use of the Internal Report and the commercially confidential data this will contain?

b.      With reference to clause 42 of the Department’s Standard Terms and Conditions of Contract does BEIS intend to enter into a confidentiality agreement with the Contractor covering use of the Internal Report and agreeing to keep this confidential?

c.      What assurances would the Contractor be able to provide to technology developers that the Internal Report containing their commercially confidential data would be kept confidential by BEIS and not disclosed to other parties?

d.      Would the additional disclosure rights under clause 42 of the Department’s Standard Terms and Conditions of Contract also apply to the Internal Report such that BEIS would have the right to disclose the Internal Report to the parties listed in clauses 42 (2), sub-clauses (a) – (f)?

e.      Clause 9 of the Department’s Standard Terms and Conditions gives BEIS rights to disclose confidential information to if it obliged to under FOIA or EIR.  Could BEIS confirm that the Internal Report will be exempt from public disclosure under these Acts?

f.       Clause 27(4) of the Department’s Standard Terms and Conditions requires the Contractor, in respect of any materials used by the Contractor in providing the Services and in which there are pre-existing Intellectual Property Rights owned by third parties, to procure for BEIS a license “to use, reproduce, modify, adapt and enhance the material as the Authority sees fit”.  How will this obligation apply to information provided by technology developers for the study (including their commercially confidential data)?  Our view is that technology developers would not be willing to agree to a license on these terms allowing BEIS to “modify, adapt and enhance” their proprietary information. Will BEIS consider alternative licensing terms for pre-existing Intellectual Property Rights to apply for this contract?

**Response:**

BEIS anticipate that the successful supplier will have to enter into some form of confidentiality agreement with the technology developers. Historically BEIS has avoided entering into confidentially or non-disclosure agreements, especially in relation to innovation projects, and evidence provided to the Department in confidence. This is because there are clear statutory obligation on BEIS to both protect material provide to it in confidence and to publish information when in the public interest, specifically FOI requests and EIRs. The concern we have is that such an agreement might give the impression of greater protection, when in fact our statutory obligation have not changed. Similarly from past experience of BEIS work, especially in relation to innovation projects, we consider there is sufficient flexibility that article 27 does not need to be modified.

We are prepared to take advice from bidders on the aforementioned and come to some arrangement that meets the objectives of the study.

1. **Overall limit of liability**

Is BEIS open to negotiation on the contract terms? There are a number of items in the standard DECC contract which contravene Bidder’s corporate principles and which Bidder will require an alternative position on. By way of example:

         Bidder requires protection from the consequential, special or indirect losses of BEIS and its group, where applicable (we note that clause 18(2) is currently counter to this position).

         Bidder requires an overall limit of liability that is no more than twice the value of the contract (reference clause 18(7)).

**Response:**

BEIS is unaware of any precedent where we have accepted changes to the terms of clause 18(2). If a bidder has knowledge of such, and can evidence where it was accepted on a study in keeping with this ITT, BEIS would be prepared to consider offering a similar arrangement.

Due to the nature of this study, BEIS is prepared to accept an overall liability of no more than twice the value of the contract. A condition of meeting this reduced liability cap, is that any publically available report by the successful supplier needs to be clear that the information contained shouldn’t be considered as advice to outside organisations.

To ensure bids are compliant and can be compared between one and another, with the exception of the aforementioned, bids will not be considered compliant if they contain additional changes to the Standard Terms and Conditions.

1. **Overall limit of liability (2nd question)**

Tenderer notes in clause 18 (7) of the Department’s Standard Terms and Conditions which will apply for the Contract that the liability cap is set at £4,000,000. Given that the budget for this project is a fixed price of £150,000, Tenderer would like to propose in its tender a lower liability cap for the Contract.  Please advise if this would be acceptable?

**Response:**

Please see response to question 5.

1. **Extension to the study deadline**

Apologies for requesting at this late stage but would it be possible to extend the tender deadline? We are keen to provide BEIS with a proposal that details a comprehensive, well considered methodology that will achieve the aims of the project and support the development of the UK Government CCS policy.

**Response:**

An extension has been provided from the 10th November 2016 to the 21st November 2016.

1. **Scale of capture system and application studied**

Guidance on scale of applications and capture systems:
During execution of WP3 will the BEIS team provide guidance on the physical scale of the processes that should be considered in the benchmarking of state of the art and next generation capture technologies?

**Response:**

The capture systems will be studied to a scale in keeping with what is currently considered commercial, in the order of magnitude of 500 MWe.

1. **Use of the term detailed engineering analysis**

Clarification of the expectations regarding detailed engineering analysis:
The tender indicates that "detailed engineering analysis" is part of the scope. "Detailed engineering" has a specific meaning in engineering design processes, and is the phase of the design process where most specifications are finalized. Given that the scope of the study is novel CO2 capture technologies applied generically to different industrial processes, it seems unlikely that true detailed engineering is what is sought. Can you please clarify what BEIS' expectations are for the "detailed engineering analysis"?
For example, are any of the following examples in line with what is expected:
a) A representative effluent stream is used as an input to a flowsheet model of the carbon capture process and the key operational parameters such as required energy inputs of the capture process are estimated
b) Both the industrial process and the capture process are modelled using flowsheet models but details of the process integration beyond the effluent stream are not explicitly analysed
c) Both the industrial process and the capture process are modelled using flowsheet models and the process integration beyond the effluent stream (e.g., source of steam) is explicitly analysed

**Response**

Use of the specific meaning was not intended. The term was used to distinguish additional engineering analysis that go beyond what is commonly performed during techno-economics analysis studies.

1. **Use of the term detailed engineering analysis (2nd question)**

WP6 requires the recommendation of a prioritised list of next generation capture technologies. The ITT then states that under this WP, detailed engineering design, analysis and economics is also required for up to four applications. Is it envisaged that the engineering design and economic analysis is to be undertaken at the component level or will this be a techno-economic whole system analysis.

**Response:**

Due to the maturity of next generation carbon capture technology being developed in the UK and internationally it was assumed that this study might contain elements of additional design or engineering work to increase the accuracy or robustness of the techno-economic analysis. This additional work will be designed around the maturity of the technology and what work has been completed to date.

1. **Use of the term detailed engineering analysis (3rd question)**

The text for WP6 (page 14 of the ITT) suggests initially that a prioritised list of technologies for FURTHER study is to be prepared in preparation for detailed engineering design of the two top options for 4 different cases.  However the table on pages 15 and 16 INCLUDES as part of WP6 undertaking of these detailed engineering designs.  We would normally understand detailed engineering design to refer to the final stage of process plant design - immediately preceding the build phase.
Please could you therefore clarify whether the detailed design described in the table of outputs is required to be carried out within the scope and if so what level of detail is required?

**Response:**

See responses to question 9 and 10.

1. **Conflict of interest**

Please can you clarify whether providing support to existing CCS technology developers would be considered to represent a conflict of interest given that information will be anonymised in any reporting / benchmarking output from the work.

**Response:**

BEIS appreciates that the suppliers that can complete this work to our satisfaction belong to a small group of competent suppliers, and that these suppliers have either worked with other technology developers or within their own organisations might own competing technology. Indeed if the suppliers hadn’t had such previous experience they would most likely not be the right supplier to perform this work. We expect suppliers who have conflict of interest concerns to raise them and discuss within their bids what options exist to mitigate the conflict and allow them to deliver a high quality bid.