



Programme Area: Carbon Capture and Storage

Project: MMV FRP

Title: Measurement, Monitoring & Verification of CO2 Storage: UK

Requirements Study – Request for Proposal

Context:

This desk-based survey of UK requirements for Measurement, Monitoring and Verification (MMV) of offshore CO2 storage sites was designed to provide a clear view of the developing legislation, state of the art of MMV technologies and field experience in UK offshore applications. The study reviewed UK legislative requirements, features of likely UK storage sites and potential MMV technologies. From this, MMV technology development requirements were identified to give an understanding of the main technology gaps and to establish where ETI resources should be focused to deliver future technology development. The Project provided valuable and focused information about the technology and developing regulatory environment and identified priorities for the development of MMV technologies to meet UK requirements.

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Request for Proposals (RfP)

Title of Services for which Proposals are Requested:

Measurement, Monitoring & Verification of CO2 Storage: UK Requirements Study

Request Issue Date:

11 May 2009

Deadline for Notification of Intention to Submit a Proposal:

22 May 2009

Closing Date:

Proposals must be received before 5pm on 1 June 2009

Contact for Enquiries:

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1. Introduction and Overview of the Services Required

1.1. Introduction to the Energy Technologies Institute

The Energy Technologies Institute LLP (the ETI) is a private organisation formed as an innovative Limited Liability Partnership between international industrial energy companies and the UK government.

Our mission is to accelerate the development, demonstration and eventual commercial deployment of a focused portfolio of energy technologies, which will increase energy efficiency, reduce greenhouse gas emissions and help achieve energy and climate change goals.

We will do this by leveraging the skills, capabilities and market access routes of our members, working with other organisations worldwide, to take the most challenging large-scale energy projects to full system demonstration, thus bridging the gulf between laboratory proven technologies and full scale commercially tested systems. Our projects will also develop knowledge, skills and supplychains, and will inform the development of regulation, standards and policy. Hence we aim to overcome major barriers, de-risk the future development and shorten the lead times to market for secure, affordable, low-carbon energy systems for power, heat and transport.

Our portfolio includes programmes in areas such as Wind, Marine, Distributed Energy, Transport, Energy Networks and Carbon Capture & Storage.

Further information can be found on our web-site at www.energytechnologies.co.uk

1.2. Background to the Project

Measurement, Monitoring & Verification (MMV) of CO₂ storage sites is required to verify the quantity of CO₂ stored and detect any leakage. MMV has been identified by the ETI as a key technology area in support of roll out of CCS in the UK. It is anticipated that ETI technology projects in this area would involve development of MMV tools and strategies to meet UK legislative requirements and its specific technical needs (eg offshore operation).

The ETI has identified that before launching a project procurement process, more effort is required to assess UK needs against previous MMV experience and current technologies and wishes to procure a study to address this. This study will provide the grounding that will ensure that the ETI will be in a position to develop projects on novel MMV technologies for UK offshore applications that address key gaps in requirements.

1.3. Outline Scope of the Project

The proposed project comprises two workpackages (see Section 3 for details).

WP1: Assessment of MMV Legislation, Technology and Experience. This will provide a review of the developing regulatory requirements which will affect UK CO₂ storage and will benchmark current MMV technologies and field experience relevant to UK offshore application. WP1 will identify the key requirements for technologies and methodologies to meet the UK's CO₂ MMV needs.

WP2: Identify MMV Technology Development Requirements and Opportunities. This will examine potential improved technologies and identify the most promising means of addressing key gaps.

In parallel with ETI's proposed study, the joint industry Carbon Capture Project (CCP) is undertaking a related project with similar aims, but significantly different (onshore) applications (the USA-based 'Regional Partnerships'). The ETI and CCP have agreed that links between the two projects will be maintained to share best practice: Respondents should note points in proposed work programme where liaison with the CCP project is anticipated.

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1.4. Required Outcomes and Critical Success Factors for the Project

The key outcome of the study will be a clear view of the priority technologies and methodologies which the ETI should consider funding in its Technology Programme to enable timely implementation of effective MMV programmes in the UK. A secondary, but valuable, outcome for the ETI Members will be improved understanding of what a practical MMV strategy will comprise in a UK offshore storage site.

Critical to the success of the project will be the ability of the Prime Contractor to bring together knowledge of the technologies, experience of MMV in the field and understanding of the developing legislative framework for storage to enable key requirements and opportunities to be identified.

1.5. Anticipated Project Organisation Structure

It is anticipated that the work will be undertaken by a single Prime Contractor, but it is recognised that the Prime Contractor may need to involve additional subcontractor(s) to provide all the necessary knowledge, skills, experience and inputs to complete the Project (as detailed in Section 2.2).

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2. Request for Proposals Process and Terms

2.1. Content and Format of Proposals

Interested organisations are requested to submit a collective Proposal through their nominated Respondent as described in Section 1.5 above. The Proposal shall be arranged according to the structure detailed in Appendix A and shall include all the information listed therein.

The Proposal must be written in a succinct manner and must not include imprecise statements, generalities or repeated information. The Proposal must be easily readable with appropriate font sizes, margins, etc, and **shall not exceed a maximum of 20 pages** (excluding the due-diligence information required under Section 12 of Appendix A).

Additional information (such as organisational brochures, etc) may be provided to accompany the Proposal if this is expected to add value (although it is not necessarily required by the ETI), but such additional information will not usually be taken into account when reviewing Proposals.

The Proposal shall consist of **one (1) complete hard copy and one (1) electronic copy**. The latter shall be provided in both PDF and Microsoft Word formats.

2.2. Acceptance, Review and Selection of Proposals

Proposals will be reviewed and judged primarily against the criteria listed below.

- Completeness of information content, structure and quality of Proposal (against areas listed in Appendix A)
- Compliance with technical specification (i.e. Sections 1.3, 1.4 and 3 of this RfP)
- Knowledge, skills and experience, which must include ALL of the following. A table should be provided to identify which Participant(s) is/are proposed to satisfy each of the following criteria:

(a) Generic Criteria:

- Availability and stability of deployable resources to mobilise sufficiently rapidly and for sufficient durations
- Record and ability in quality, timely and on-budget delivery (of technology programmes) to the full satisfaction of the main stakeholders
- Knowledge and previous experience of industry, environment, technologies, and of this type of study, etc
- Ability and experience in collaborative working
- o For the lead organisation particularly, project management expertise

(b) Specific Technical Criteria:

- Knowledge of MMV technology developments worldwide;
- Established links with MMV technology developers, networks and demonstration projects worldwide;
- Experience of developing MMV strategies for injection projects, and analysing/ interpreting results from such projects;
- Knowledge of UK offshore geological formations likely to be used for CO₂ storage, or similar;
- Practical experience in deploying MMV techniques in the field, without significant proprietary interests that could affect objectivity of the study;
- Knowledge of (and preferably involvement in) the developing UK/EU legislative framework for CO₂ geological storage.
- Effectiveness of the contracting, organisational, governance and control structures and processes proposed for the participating entities / organisations
- Project approach and plan, including Gantt chart, suitable stage gates & payment milestones, and proposed management of specific risks and issues
- Compliance with terms and conditions, including any intellectual property issues (such as acceptance of ETI IP terms, or the existence of any IP issues which may affect the ability to carry out the Project and exploit the results)

Value for money

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The ETI at its discretion may request further information in order to assess a Proposal, and may reject any Proposal which does not provide sufficient information.

This RfP is not an agreement to purchase goods or services, and the ETI is not bound to enter into a Contract with any Respondent. All decisions made by the ETI relating to the acceptance, review and selection or otherwise of Proposals are final. The ETI will be under no obligation to explain or justify any such decisions at any time.

2.3. Estimated Time-Frames

Respondents shall notify the ETI of their intention to submit a proposal. This notification shall be in writing to the Address for Submission of Proposals, no later than the Deadline, all as listed on the front cover of this RfP.

The following timetable outlines the anticipated schedule for the contract process. The timing and the sequence of events resulting from this Request for Proposals may vary and shall ultimately be determined by the ETI.

| Event | Anticipated Date(s) |
|---|--|
| Deadline for Notification of Intention to Submit a Proposal | 22 nd May 2009 |
| Closing Date for Responses to RfP | 1 st June 2009 |
| Preferred Bidder Identified | 12 th June 2009 |
| Project Detailing and Contract Agreement | 15 th June – 10 th July 2009 |
| Contract Approval | July 2009 |
| Project Start | ASAP after approval |
| Project Duration | approx 5 months |

2.4. Ownership of Proposals and Confidentiality of Information

All documents, including Proposals, submitted to the ETI become the property of the ETI. They will be received and held in confidence by the ETI, subject to the ETI reserving the right to provide such documents to third parties engaged by the ETI in its assessment of them. Organisations selected by the ETI to be taken forward to the Project Detailing Stage will be required to sign non-disclosure agreements.

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3. Specification of Project Scope of Work and Deliverables

The work will focus on measurement, monitoring and verification (MMV) of CO₂ storage in offshore geological formations (depleted hydrocarbon fields and saline aquifers) in UK territorial waters. It will not include applications for Enhanced Oil Recovery (EOR). It will not consider measurements concerned with operation of the plant or pipelines since these can be addressed by existing methods.

3.1 Work Package (WP) 1: Assessment of MMV Legislation, Technology and Experience 3.1.1 WP1: Context

In order to establish whether particular measurement techniques have the sensitivity and accuracy needed to meet potential regulatory requirements and show that they will be able to work in the arduous offshore and downhole environments, the first step will be to identify the requirements for MMV in the UK. The requirement to assess the *quantity* of CO₂ present and the *extent* of any leakage (as distinct from the position of the CO₂ plume in the storage site or the existence of a leak from it) will have a substantial impact on the choice, accuracy and resolution of the measurements to be made. Such assessments typically involve modelling of the CO₂ underground - the need for other information, such as the amount of CO₂ that has dissolved in the formation water, must also be considered. Detection of leakage might be done by regular monitoring but different techniques may need to be employed to quantify the amount of CO₂ leaking from a facility.

3.1.2 WP1: Scope

- The requirements for MMV will be determined. The study will include a review of the currently known and likely future needs of regulators and government applicable to UK offshore storage (eg IPCC 2006 Guidelines, draft Directive on Geological Storage of CO₂, forthcoming ETS Directive). The Respondent should identify how they would interact with the newly-formed IEA Regulators' Network. The typical range of values of the parameters to be measured shall be identified, e.g. for leakage, typical values of the magnitude and flux of leaks expected from various sources will be established (e.g. well bore failure, blow-out, geological fractures, migration out of target formation). For the amount of stored CO₂, the accuracy required in measuring this will be postulated (with suitable justification). Example scenarios will be established to describe these parameters for use in WP2 as the basis for selecting MMV techniques. As a result, requirements for sensitivity and detectability will be identified.
- Recent surveys of techniques available for MMV will be updated, including quantification of the sensitivity, robustness, cost, etc of the various techniques identified (Respondents should identify which surveys they will use as a basis). The survey shall include new techniques in research or development (which will then be considered in more detail in WP2). The survey should include activities in collaborative projects elsewhere which are exploring similar issues, including the networks on storage in Canada and Australia, regional partnerships in the USA, the CO2Remove project in Europe, the Carbon Capture Project (CCP) and the IEA GHG monitoring network. These groups may have different focus on how to identify relevant MMV processes and tools and have made different degrees of progress with their tasks. In order to optimise the collection of information without redundancy, a view will be taken of the work underway elsewhere, in order to develop a means of properly directing UK expertise in future. The Contractor should share findings with the contractors undertaking the CCP study during this task to ensure a consistent and comprehensive survey is completed in both studies.
- The Contractor shall select four (4) actual and planned injection projects worldwide considered to be relevant to UK offshore application (Respondents should propose which projects they believe to be most appropriate in their proposals). These will be reviewed in terms of (a) their risk profile (b) regulatory environment, (c) the measurement techniques used, and (d) the flexibility and responsiveness of the MMV plan to learning achieved during the monitoring. The aim will be to learn how the techniques were selected, their costs in use and to identify

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any useful experience gained from the process. Before undertaking the review, the Contractor shall liaise with the contractors undertaking the CCP study to agree a common methodology to undertake this review.

- The Contractor shall make a technical assessment of the measurements needed to address the MMV requirements identified above; this may involve modelling of the measurements using available data from injection projects to define the capabilities. This task will show how well the requirements can be met by existing measurement technologies, including suitable integration of different technologies where appropriate. This will identify gaps in MMV technology that need to be addressed, with explanation of the reasons/justification for further work.
- For all parts of the work, the Respondent should identify the sources of information it proposes using, and identify any key risks in accessing such information.

3.1.3 WP1: Deliverables

Interim Report including an overview of the requirements for MMV in UK offshore applications, with quantified ranges of leakage possible and accuracy required to enable specification of measurement technologies (this to be reported as soon as completed).

Interim Report including a survey of techniques suitable for MMV characterised by their relevance to expected UK offshore needs (this to be reported as soon as completed).

Final WP1 Report and presentation to ETI Members, incorporating the above two Interim Reports, plus:

- An overview of the state of the art in deployment of MMV techniques worldwide.
- Identification and quantification of gaps in the capability of MMV technologies likely to be most relevant to ETI members.

3.2 WP2: Identify MMV Technology Development Requirements and Opportunities

3.2.1 WP2: Context

From WP1, the measurement technologies most relevant to future UK offshore needs will be identified. Their state of readiness and the need for additional development work will be identified in WP2. Recommendations will be advanced for addressing key gaps, including promulgation of targets for sensitivity, detectability, robustness and other key features as required.

3.2.2 WP2: Scope

- The novel measurement technologies identified in WP1will be assessed, as follows:
 - the state of development will be identified;
 - the potential for these new techniques to address the gaps between needs and current capabilities identified in WP1 will be considered;
 - the novel techniques will be screened for practicability against the expected needs of real projects, including suitability for offshore operation;
 - a ranking of novel measurement techniques will be made, taking into account the extent to which the techniques might provide a service not otherwise available, or whether they would improve significantly on methods currently in use;
 - o recommendations will be made as which are the most prospective techniques.
- A strategy for developing a monitoring programme will be produced and demonstrated for a range of examples of likely UK offshore situations (e.g. for different depths, geological settings, quality of seal, penetrations, etc). This may be based on existing methodologies (eg

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the BGS tool). This should include demonstration of how the most relevant techniques would be brought together into a monitoring plan to address the main needs of the operator and how well they would meet regulatory requirements (e.g. in respect of leakage, it would show how leak detection would be best carried out and how leakage measurement would be achieved so as to satisfy likely reporting required under the ETS). Other points to be considered include how flexible the plan might be to knowledge gained after monitoring has started, and an estimate of the likely cost in use of the monitoring programme.

- For each of the technologies identified as relevant to likely UK needs, potential technology providers will be located. The extent to which each of these technologies is ready for use will be assessed. Where further development is needed, the work that needs to be done will be identified, together with recommendations as to who would be best placed to do it so as to ensure the measurement technologies are available when needed. Some approximate estimates of the cost of development will be made in each case and compared with the benefits to be achieved versus existing techniques. Estimates will be made of expected cost in use.
- Having identified and quantified technical gaps in the key measurement techniques, the need
 for technology integration will be assessed; feasible means of integrating technologies (such
 as downhole sensors) will be identified; the benefits of integration of different measurements
 will be compared with the cost and difficulty of achieving such integration; recommendations
 will be made about priorities for integration of different measurements.
- Recommendations will be made about the most appropriate techniques for development taking account of expected needs in UK, together with timescales, identification of appropriate organisations to carry out the work and approximate amount of investment required.

3.2.3 WP2: Deliverables

A multi-dimension review showing how UK offshore MMV needs can be met by available and proposed MMV technologies, including specification of gaps and key targets for development.

A robust strategy for developing a monitoring plan appropriate to the needs of ETI Members.

Identification of technology integration needs/opportunities.

Recommendations for development of further techniques to meet the expected needs of ETI's Members.

3.3 Project Schedule

It is anticipated that WP1 and 2 will be completed within an overall duration of 5 months. Respondents should consider to what extent WP1 & WP2 can be undertaken in parallel to meet this timeframe. The project schedule should include a Stage Gate (major project review) after completion of WP1 and the initial (parallel) parts of WP2.

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4. Price and Payment

This Project will be paid on a fixed price basis. The Project Contract will include defined deliverables, with acceptance criteria, and defined Payment Milestones by which one or more deliverables will have been completed. Payments will be made against each defined Payment Milestone, subject to ETI acceptance of the Milestone Completion Report.

Further information is contained in the Summary of Terms contained in Appendix B.

An Accountant's report shall be required to support selected financial reports and invoiced amounts, dependent upon the total contract value to be paid to each Participant. Details of these requirements will be agreed during the Project Detailing phase.

5. Terms and Conditions for Project Contract

During the Project Detailing phase, a Project Contract will be drawn up by the ETI based on its standard contracts for such work and incorporating appropriate information from the ETI's RfP and the Respondent's Proposal. Full terms and conditions will be agreed at that time, but a Summary of Terms is included in Appendix B.

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Appendix A – Content and Format of Proposals

The Proposal shall be arranged according to the structure defined below and shall explicitly include all the information listed.

1. Executive Summary [maximum 1 page]

A summary of the Proposal, describing briefly:

- The organisation / Consortium undertaking the work
- Summary of the technical approach and *key* deliverables
- Confirmation of compliance with the Specification detailed in the Request for Proposals and/or brief summary of key exceptions/deviations
- Total Project cost and duration.

2. Project Objectives [typically $\leq 1/2$ page]

The overall Project objectives will be as specified in the Request for Proposals. The Respondent may provide subsidiary objectives if they think this is appropriate. The Respondent should also describe any Critical Success Factors which either characterise a successful Project outcome or which are required to facilitate a successful Project outcome.

3. Background to Proposed Participants

The Respondent should provide a brief description of each of the proposed Participant organisations, including any major Subcontractors, **[maximum 1 page per Participant]**, including:

- Key skills, knowledge, experience and previous track record in the area (technical, commercial
 and project management, including any UK-specific issues such as technology applicability to
 UK systems, UK industry practice, UK market/industry knowledge, etc)
- Key staff members involved (including a designated Project Manager), with the amount of each individual's time which will be dedicated to the Project, and detailing their experience – with CVs included in an Appendix (maximum 2 pages per individual)
- Alternate resources available to be deployed in the event that the above key members become unavailable
- Relevant quality, health, safety and environment management systems.

If the Project is to be undertaken by a group of organisations (whether as a Consortium or as Subcontractors), a table **[typically ½ page]** should also be provided to identify which Participant(s) is/are proposed to satisfy each of the specific criteria (skills, experience, etc) listed in the 'Criteria for Review and Selection of Proposals' section of the Request for Proposals.

Also if the Project is to be undertaken by a group of organisations (whether as a Consortium or as Subcontractors), evidence of previous collaborative working (or subcontract management as appropriate) should be provided, both within and outside the Participant group *[typically ½ page]*.

4. Project Organisation [typically 2 pages]

The Respondent should provide Project organisational, governance and control structures and processes (particularly for Consortia).

The Respondent should indicate in the structure each Participant (including the ETI) and the position of the key individuals identified in Section 3 (including the Respondent's Project Manager).

The Respondent should identify in their Proposal any foreseen issues or difficulties in respect of the details of concluding a Consortium Agreement or of the process of executing one.

5. Programme of Work [typically 5 – 10 pages]

The Respondent should provide a summary of the overall approach to delivery of the Project, and a Task-by-Task breakdown of the proposed work, identifying for each Task:

- the Task leader
- other Participants involved
- key dependencies

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- the technical approach (including use of any specific methodologies, techniques or tools)
- Task objectives
- deliverables, including for each deliverable a specification (e.g. quality, appearance, scope, function and purpose as appropriate) and proposed Acceptance Criteria

The Respondent should be specific about the activities within the Task, e.g. including test/simulation matrices or stating a number of tests/simulations.

Any issues or assumptions in defining the programme or schedule (e.g. inputs required from the ETI or other projects) should be explicitly stated.

A specific project management Task (or Tasks) should be identified describing all the activities in this area (e.g. regular meetings, reporting, Stage Gates etc). Note that throughout Project delivery the ETI will require reports of monthly progress with supporting financial data, reports to substantiate completion of each milestone, etc.

If appropriate, a work flow diagram should be provided to illustrate the relationships between Tasks.

Any relevant activities related to but not included within this Project, and the relationships with these activities, should also be described.

6. Deliverables & Payment Milestones [typically 1 page]

Following the detailed specifications of each deliverable in the previous section, a summary table should be provided here listing all the Project Payment Milestones (i.e. key points in the Project where one or more Deliverables will have been provided and payment is requested from the ETI), and their constituent deliverables, with due dates for each deliverable and Payment Milestone.

Refer also to Section 11.

7. Project Schedule [typically 1 page]

The Respondent should provide a time schedule for the Project (e.g. in the form of a Gantt chart) showing the main Work Packages, Project stages and main Tasks within each Work Package and stage. This should clearly identify:

- Task durations and dependencies (including any inputs required from the ETI or other parties and any other external dependencies)
- Project Deliverables
- Payment Milestones and other relevant milestones
- Project Stage Gates, if appropriate (i.e. major review point(s) in the Project).

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8. Risk and Health, Safety & Environment (HSE) Management [typically 3 pages]

The Respondent should describe the proposed Risk Management Strategy (i.e. how risks to the successful delivery of the Project will be identified and managed throughout the Project). They should also provide a Risk Register, identifying the key challenges, risks (including any assumptions or dependencies identified earlier), issues and opportunities which may affect the successful delivery of the Project outcomes and identifying planned activities to address / mitigate each item.

Further to the summaries of each Participant's HSE management systems provided in Section 3 of the Proposal, The Respondent should provide here a register summarising the main anticipated HSE issues potentially affecting the Project and proposed strategies to address / mitigate each item.

9. Statement of Compliance [typically 1 page or less]

The Respondent shall provide a statement that the Proposal is fully compliant with the Specification and all other aspects of the Request for Proposals, or shall state clearly any exceptions, deviations, alternative approaches or additions to the required Specification, with justification. *Note that in the absence of any specifically-stated deviation in this section of the Proposal, in the case of any subsequent dispute, the ETI's specification will take precedence over the Proposal.* Additional comments and clarifications should also be listed where appropriate (for example to clarify interpretation of requirements), but these must be differentiated from any deviations / exceptions above.

10. Intellectual Property (IP) [typically 1 page or less]

Any Project commissioned by the ETI will be subject to the appropriate ETI terms and conditions, (a summary of which is included in Appendix B), which state that all Arising IP will belong to the ETI. The Respondent should provide a brief overview of the nature of any anticipated IP Arising from the Project.

The Respondent should describe any Background IP (e.g. patents, proprietary data, computer algorithms, knowhow or other IP):

- which is needed to carry out the Project or which may be used during the Project; or
- which may be needed by the ETI to exploit the Arising IP.

The description of any such Background IP should detail:

- the nature of the IP,
- rights to that IP, and
- ownership and control, whether this is by any of the Project Participants or by any third parties.

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11. Project Payment [typically 1 – 2 pages]

- (a) The Respondent should provide:
 - a figure for the *total fixed contract value*, and
 - a **breakdown** between Tasks and (for consortia or other Participant groups) **between Participants against each Task**.

If there are any assumptions or limitations to this price, these should be clearly stated.

(b) The Respondent should also provide a *breakdown of the total contract value (only) by category*, as specified in the Table below.

| | Participant 1 (Lead Coordinator or Prime Contractor) | Participant 2 | Participant 3 | Participant 4 | Participant 5 | Total |
|------------------|--|------------------|------------------|------------------|------------------|-------|
| Number of | | | | | | |
| Person-days | | | | | | |
| Base Labour | | | | | | |
| Materials | | | | | | |
| Capital | | | | | | |
| Subcontractors | | | | | | |
| Travel & | | | | | | |
| Subsistence | | | | | | |
| Overheads | | | | | | |
| Other | | | | | | |
| Profit | | | | | | |
| TOTALS | | | | | | _ |
| Profit Margin, % | | | | | | |

Notes on Category Breakdown table:

- 1. Base Labour should include direct add-ons (eg NI, pension etc)
- 2. Capital costs should be based on depreciation during the Project x % usage on Project
- 3. Participants will be required to provide justification of overhead calculations during the Project detailing stage. ETI can provide a spreadsheet to calculate overheads on request
- 4. Participants are required to declare their profit margins
- 5. Academic Participants should determine their costs using the JeS system. Note that ETI funds Academic Participants at 100% Full Economic Cost.

Please note that during Project Detailing (prior to contract signature) the ETI will require more detailed cost breakdowns, including a schedule of payments against the Payment Milestones identified in Section 5 above.

12. Due Diligence Information [this is excluded from the page limit]

- A. ALL Participants shall confirm that there are no potential, threatened, pending or outstanding recovery orders by the European Commission in respect of any funding received by any Participant.
- B. All Participants (except ETI Members, universities / higher education institutions and UK/EU government laboratories / agencies) which provide more than 20% of the resources for the Project or which provide an input which is critical to the Project's success, shall provide Due Diligence Information to the ETI according to the table overleaf.

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| Details of organisation |
|---|
| Full name: |
| Registered Office: |
| Type of Business (sole trader, limited company, partnership etc): |
| Names of directors/partners/owner: |
| VAT number: |

Details of directors, partners or associates

Have any directors, partners or associates of the organisation been involved in any organisation which has been liquidated or gone into receivership? (Yes/No)

Have any directors, partners or associates of the organisation been convicted of a criminal offence relevant to the business or profession? (Yes/No)

Please give (and attach if necessary) full details if you have answered 'Yes' to either of the two previous questions.

Audited Financial Accounts

Please supply Audited Financial Accounts for the last 3 years for the organisation, or relevant part thereof.

Claims or litigation

Please provide (and attach if necessary) details of any claims or litigation against the organisation, outstanding and/or anticipated.

Insurance

Please confirm that you have insurance cover for the following risks, and confirm levels of cover and expiry for each. ETI will require evidence of these during the Project Detailing phase.

- Property damage
- Business interruption
- Employer's liability
- Public liability
- Product liability (or justify its exclusion if not appropriate)
- Professional Indemnity

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Appendix B – Summary of Terms and Conditions for Project Contract Introduction

The following represents a summary of the key contractual terms which the ETI would expect to be included in the Technology Contract for a project under which the ETI owns all arising IP. This summary relates to projects to carried out by a single contractor, the Contractor, which may have specific named parts of the scope subcontracted.

Structure

 The Contractor will manage the project. Where there are other subcontractors, they shall be represented in dealings with the ETI by the Contractor, who shall be responsible for managing communication between the ETI and any subcontractors. This role includes providing notices of meetings and other activities to the ETI, reviewing and commenting on project reports (as required under the project). The Contractor will be responsible and administer payment for all of its subcontractors.

Project Management

- 2. The Contractor will appoint a project manager for the day-to-day management of the project. The ETI will appoint a programme manager to act on behalf of the ETI with regards to the project.
- 3. The Contractor must fulfil various reporting obligations. The requirements for reports will depend upon the nature of the project, the deliverables under it and the duration of the project but are likely to include monthly reports, milestone reports, annual reports and a final report. Each report must address a specified list of topics required by the ETI.
- 4. The ETI will require the right to carry out a stage gate review on completion of a "stage" (or at least once a year) in order to assess whether the project continues to deliver against ETI outcomes and also in order to carry out a validation exercise against the business case. The ETI may carry out stage gate reviews more frequently if the project is in jeopardy. The need for stage gate reviews and the definition of a stage will depend upon the nature of the project.

Finance

- 5. ETI will pay against milestones and only in respect of actual costs incurred (or at pre agreed profit margin, if appropriate) for the work done under the project. Only eligible costs will be payable. Ineligible costs include interest charges, bad debts, advertising costs and legal costs incurred in finalising contracts and carrying on the project. Acceptance of milestones will be determined by the ETI, where appropriate, against agreed acceptance criteria. Any increase in costs in carrying out the project over and above the agreed contractual amounts will only be payable by the ETI when such charges are agreed in accordance with the contractual variation control procedure.
- 6. Costs are payable in Sterling and ETI will pay valid invoices within 30 days of receipt of invoice following acceptance of a milestone. An accountant's report will be required to support selected invoices, in accordance with a standard ETI matrix.

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7. The ETI reserves the right to require the return of funding in certain circumstances (such as in the event of corruption or fraud, overpayment, costs incurred in respect of unapproved project changes and failure to comply with State Aid obligations).

Confidentiality

8. Restrictions on disclosure of any other party's confidential information will apply. Any publication of results (if appropriate) will be subject to the confidentiality provisions in the agreement.

Audits and Records

- 9. ETI will require the right to audit the project, the Contractor and the named subcontractors during the project and, in certain circumstances, up to 7 years from the end of the project on financial or technical grounds.
- 10. Any parties involved in the project will be required to maintain the majority of project records for a minimum of 10 years from the project end date and for potentially more than 20 years where the records relate to registered intellectual property rights. The Contractor shall require no less obligations from its key subcontractors.

Sub-contracting

- 11. Sub-contracting is not permitted without consent, except for agreed known subcontractors included at signing.
- 12. The Contractor must subcontract on no less onerous terms than the Technology Contract.

Variation

13. Any variations to the project must be made via the variation control procedure.

Liability

14. The liability provisions relating to the Contractor will be tailored on a case-by-case basis but are likely to be capped at (or at a multiple of) the amounts payable or received under the project (except in the case of IP infringement claims, certain third party claims or other liabilities which cannot be limited or excluded by law. For these claims, no cap will apply). Recovery of indirect, consequential etc. damages will usually be excluded.

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Withdrawal

15. Withdrawal from the project is only possible with the unanimous consent of ETI. In such circumstances, the Contractor cannot recover outstanding costs, unless otherwise agreed.

Termination and Suspension

- 16. The ETI reserves the right to terminate the agreement in certain circumstances (such as breach by the Contractor (which shall include a breach by a subcontractor), insolvency, change of control of a Contractor etc.). The ETI also reserves the right to terminate the agreement unilaterally upon giving a (to be agreed) period of notice to the Contractor. Upon termination, the ETI will pay the eligible costs incurred by the Contractor up to the date of termination.
- 17. The ETI will reserve the right to suspend the project in certain defined circumstances.

Intellectual Property

- 18. All arising IP from the project will be owned by the ETI. The Contractor and any subcontractors will, to the extent required, be required to assign all relevant arising IP to the ETI.
- 19. The Contractor and any subcontractors will be required to licence their background IP: (i) to the other parties involved in the project on a royalty free basis where required for the purposes of the project; (ii) on fair and reasonable terms to the ETI or sub-licensees of the ETI, where required for the use or exploitation of the arising IP.

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Appendix C - Glossary

| Term | Definition |
|-------------------------|--|
| Consortium | The group of organisations described in Section 1.5 which may decide together to submit a Proposal to carry out the Project and be governed by a Consortium Agreement between themselves. This will not include the ETI itself. |
| Consortium Agreement | The agreement to be entered into between the organisations together forming a Consortium, as described in Section 1.5, which governs the execution of the Project within the Consortium. |
| Lead Coordinator | The organisation which is a member of the Consortium, and which manages and coordinates the activities of all the Consortium members, and which acts as the primary interface between the Consortium and the ETI, as described in Section 1.5. |
| Participant | An organisation which is responsible for the delivery of part of the Project scope and which is therefore the Prime Contractor, or is Subcontracted to the Prime Contractor, or is a member of the Consortium, or is a subcontractor to any of these organisations, as appropriate, as described in Section 1.5. |
| Payment Milestone | A contract milestone with defined constituent deliverables, associated deliverable acceptance criteria, and milestone value (all to be detailed in the Respondent's Proposal and agreed in the Project Contract) which should be completed in order to reach the said milestone, and at which, subject to acceptance by the ETI that the milestone has in fact been reached, payment may be claimed from the ETI on the basis described in Section 4 and on the Terms in Appendix C, |
| Prime Contractor | The organisation which manages and coordinates the activities of all the Subcontract Participants, as described in Section 1.5. |
| Programme Manager | The individual appointed by the ETI to manage the overall ETI programme to which this Project is affiliated, and to whom the Project Manager is accountable. |
| Project | The project for which the purpose, scope of work and other details are described in this Request for Proposals. |
| Project Contract | The contract, as described in Section 5, to be entered into between the ETI and the Participants (whether as a Consortium, Prime Contractor or single contractor) |
| Project Detailing Stage | The stage of Project commissioning carried out by the ETI if and after it has decided to take forward a Proposal, during which full and final Project details are established and a Project Contract is agreed. |
| Project Manager | The individual who is appointed by the Lead Coordinator or Prime Contractor, or is otherwise agreed by the Project Participants, to carry out its responsibilities. |
| Project Organisation | The entity or group of entities / organisations, and the contracting and management structure which they adopt, as described in Section 1.5, which together will carry out the Project if commissioned by the ETI. |
| Proposal | The proposal for the Project submitted to the ETI, as described in Section 2.1, in response to this Request for Proposals. |
| Respondent | The organisation submitting a Proposal to the ETI, as described in Section 2.1, on behalf of themselves and of any Consortium or Subcontract Participants. |
| Subcontract | A contractual arrangement between the Prime Contractor (described in Section 1.5) and another Participant organisation to which work has been subcontracted. This includes Participant organisations subcontracted in turn by other Participant organisations, but the Prime Contractor is not defined as a Subcontractor to the ETI. |
| Task | A significant activity or group of activities (within a Work Package) which results in completion of a deliverable or a significant part of one, or which represents a significant step in the process towards one. |
| Work Package (WP) | A major section of the Project scope of work, which may be identified in this RfP or in the Respondent's Proposal, in order to break up the scope of work into separate manageable parts. A Work Package will usually consist of a number of Tasks. |

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