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Programme Area: Marine

Project: WEC System Demonstrator

Title: Wave Energy Converter (WEC) System Demonstrator - Request for Proposal

Context:

The Wave Energy Converter (WEC) System Demonstrator Project launched in February 2013 to accelerate the development and commercialisation of WEC systems capable of becoming cost competitive with other generation forms. This project conducted design and economic analysis, focusing on ways of implementing step-change innovative technical solutions. The long-term viability of WEC technology is dependent on the sector becoming commercially competitive with other low-carbon energy sources as quickly as possible through the significant reduction of energy delivery costs. This requires improvements in aspects such as capital cost, deployment & retrieval costs, survivability, technical performance (e.g. energy extraction), and operations & maintenance costs.

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Request for Proposal (RfP)

Title of Services for which Proposals are Requested:

Wave Energy Converter (WEC) System Demonstrator

Request Issue Date:

28th September, 2011

Deadline for Notification of Intention to Submit a Proposal:

2nd December, 2011

Closing Date:

Proposals must be received before midday on 25th January, 2012

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1. Introduction and Overview of ETI Requirements

1.1. Introduction to the Energy Technologies Institute

The Energy Technologies Institute LLP (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, thereby bridging the gulf between laboratory proven technologies and full scale commercially tested systems. Our projects will also develop knowledge, skills and supply-chains, 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 Storage and Distribution, Carbon Capture & Storage, Buildings and Bioenergy.

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

1.2. ETI approach to Health & Safety

The health and safety of those who may be affected by ETI Projects is of paramount importance to the ETI. The ETI expects that:

- all Respondents will demonstrate their approach to health, safety and environmental matters throughout any Proposal to the ETI;
- any successful Participant(s) will work with the ETI throughout any ETI Project to assure the ETI that health, safety and environmental risks are being managed appropriately.

1.3. Background to the Project

Marine energy technologies have the opportunity to play a major role in enabling the UK to meet its long-term CO₂ emissions reductions targets given the significant natural energy resources available within UK waters. However, these technologies are currently at a much lower level of maturity than more established renewable energy technologies, and there remain a number of significant commercialisation challenges before marine energy is likely to establish itself within the UK energy sector.

Extracting energy from waves using Wave Energy Converters (WECs) is one method of exploiting the energy potential of the waters around the UK. To do so effectively, these devices need to be able to capture as much energy as possible from the waves whilst withstanding the often very harsh environment associated with deployment at sea. In addition, the long-term viability of WEC technology is dependent on the sector becoming commercially competitive with other low-carbon energy sources as quickly as possible through the significant reduction of energy delivery costs. This requires improvements in aspects such as capital cost, deployment & retrieval costs, technical performance (e.g. energy extraction), and operations & maintenance costs. Clear and realistic strategies must be developed and implemented to deliver these improvements.

In October 2010 the ETI, in conjunction with the UK Energy Research Centre (UKERC¹), published its Marine Energy Technology Roadmap². This includes:

- Key technology and deployment issues faced by the marine energy sector in the UK;
- Those technology development and demonstration activities identified by the ETI as its priorities for future project intervention; and
- Marine energy technology development targets³ to 2050; these targets, informed by in-house ETI techno-economic analysis, provide the ETI's view on how marine energy technology cost and performance must improve over time to deliver deployment rates that will make a material impact to the future UK Energy System.

The ETI has identified the opportunity for reducing the levelised cost of energy (LCoE) of wave energy generation through the development of innovative WEC system solutions. The cost and performance of the entire system – including the WEC device, fixations, sub-sea infrastructure and on-shore electrical grid connection – and any element of the system that affects the LCoE of the system should be considered.

ETI analysis indicates that there are opportunities for cost reduction in terms of both the capital expenditure and operational expenditure of the system as well as for improvements in performance in terms of yield and availability. It is expected that step-change innovations to the system that address these areas will be necessary to achieve the successful delivery of ETI Marine Energy Roadmap performance and cost targets.

The purpose of this WEC System Demonstrator Project is therefore to accelerate the development and commercialisation of WEC systems through an initial Project Phase of detailed design and economic analysis, focusing specifically on the means of implementing step-change innovative technical solutions. It is intended that this will be followed by a second Phase of the Project, with the ETI investing in the development and subsequent demonstration of some or all of the identified elements. It is expected that demonstration will include system component and system level activities and will be conducted in a representative setting.

There will be a Stage Gate review between the two Phases of the Project, and successful completion of Phase 1 will be required in order to advance to Phase 2.

The ETI does not aim to fund the development of a commercial scale WEC array, but rather to achieve an engineering validation of the necessary innovations and system features required to achieve convergence with the targets set in the Marine Energy Roadmap.

The ETI intends to fund the development of a WEC system concept that has the potential, with little or no further development, to make a significant contribution to the UK deployment rates envisaged in the Marine Energy Roadmap.

1.4. Required Outcomes

The Project shall deliver the following high level outcomes from Phase 1:

- A clear and verifiable route to delivering the 2020 technology and system cost and performance targets defined in the ETI / UKERC Marine Energy Technology Roadmap 2010², with a clear path to the further improvements necessary to delivering the 2030 and 2050 targets.

¹ <http://www.ukerc.ac.uk/>

² http://eti.co.uk/downloads/related_documents/ETI_UKERC_Roadmap.pdf

³ Capital cost, O&M cost, array load factor and system availability

- A WEC System Design Concept which incorporates all of the required innovations to reduce cost (capital, deployment & retrieval, operation and maintenance), to improve technical performance (i.e. energy extraction), and which can be demonstrated in a representative setting.
- Detailed design of the innovations proposed.
- A clear understanding of the market opportunity for the proposed WEC system concept

The Project shall deliver the following high level outcomes from Phase 2:

- Verification of the improved technical and economic performance through targeted WEC system demonstration activities. A representative offshore site will be used for at least part of this verification.
- The sharing of generic lessons-learned with the broader marine energy community in order to stimulate acceleration in the competitiveness of the industry as a whole.

1.5. Value Proposition

This Project represents a unique opportunity for not only device developers but also engineering and technology development companies from a range of industries, supported by the ETI, to develop and demonstrate an approach to WEC system design and operation which offers a step-change cost improvement to the industry.

The ETI expects to share the value created by this project between the selected Respondents, itself, its Members, and the wider industry. The level and share of funding provided by the ETI for this Project will determine the level of value that the ETI and its Members expect to derive.

Whilst the specific value to each Participant will depend upon their specific participation and their business strategy, the value to the ETI, its Members and the UK economy might be provided in a variety or combination of ways:

- Benefits to the ETI and its Members arising from the experience and knowledge gained during the execution of the Project; establishing a cost competitive wave energy market; increasing investor confidence in future technology deployment; standardisation of approaches and methods; market confidence in long term cost reduction opportunities; development of the supply chain;
- Benefits to the ETI and its Members arising from access to and/or value derived from intellectual property rights (including Arising IP and access to Participants' Background IP required in order to exploit the Arising IP);
- Royalty payments for the exploitation of the Arising IP from the Project by the Participants, and (where relevant) 3rd parties;
- Improved access for Members to specific innovations or devices (such as preferential access to manufacturing slots and/or guaranteed delivery times, preferential unit prices, preferential operational support packages etc.);
- Benefits to the ETI and its Members arising from opportunities to participate as preferred suppliers of technologies, equipment and services to future project owners;
- Benefits arising to the UK economy including, as appropriate and without limitation, the development, manufacture and application of the relevant technology in the UK, and in particular wide ranging applicability of any development to a broad range of devices;

- Direct financial contributions from Participants towards the cost of the Project;
- Public dissemination of selected/identified project outputs.

Within their response to this RfP, Respondents are expected to set out in detail how they propose to provide value to the ETI, its Members and the UK Economy, and to set out how they expect to derive value for themselves in each of the two Phases. This element of the response will form a critical aspect of the selection criteria.

1.6. ETI Requirements

1.6.1. Technical Requirements

The ETI is inviting proposals for WEC system design concepts, and the associated development and demonstration activities that will lead to, and verify, a substantial reduction in the cost of electricity delivery from WEC systems, and which have the potential to lead to significant UK deployment rates.

ETI analysis indicates that there are opportunities for cost reduction in terms of both capital expenditure and operational expenditure of the overall system as well as for improvements in performance in terms of yield and availability. Consideration of the whole system (including the WEC device, fixations, sub-sea infrastructure and on-shore electrical grid connection) and its full lifecycle (including installation and retrieval for deployment and maintenance⁴) as well as any implications for scaling up to large scale arrays is required to achieve the target reduction in LCoE. It is expected that step-change innovations to the system that address these areas will be necessary to achieve the successful delivery of ETI Marine Energy Roadmap performance and cost targets.

In addition to determining the make-up of the system concept that will meet the Roadmap targets, a clear understanding of the eventual UK and export market opportunity is necessary.

The ETI typically works with technologies that lie in the Technology Readiness Level (TRL⁵) range of 3 – 6 and will consider proposals that utilise technologies at these levels of development. However, the determining criteria will be the ability to verify the technical and economic performance through demonstration in Phase 2 of the key elements identified in Phase 1.

The ETI will commission this Project in two distinct phases:

Phase 1

Phase 1 will:

- (a) provide a fully-detailed and commercially scalable design concept for a WEC system (comprising sufficient devices to deliver a total peak power output of at least 10MW) including all of the specific innovation opportunities assessed and identified, that will meet the 2020 cost and performance targets in the ETI/UKERC Roadmap², namely

- Total system capital cost⁶ £2,500/kW - £4,000/kW

⁴ Decommissioning is assumed to not have a material impact on LCoE given the discount factor used and the life of the system.

⁵ A definition of Technology Readiness Levels can be found at Annex 2 to Appendix A: Technology Readiness Levels (TRL)

⁶ The total array installed cost that would be applicable to a circa 100-200 MW sized array of WEC devices, including all array equipment, total array installation and commissioning costs; a distance to the shoreline of 10km shall be assumed for purposes of calculating electrical infrastructure costs

- Operations and Maintenance costs⁷ 1.0 – 2.5 p/kWh (equivalent)
- Array load factor⁸ 35% - 40%
- System availability⁹ 90%
- Overall Cost of Electricity¹⁰ 9 – 18 p/kWh

Evidence shall be provided to justify the assumptions made in determining the above parameters for the WEC system design, along with the key dependencies associated with these assumptions (e.g. in respect of system O&M costs, the anticipated maintenance regimes and the expected downtime and cost associated with each maintenance intervention);

- (b) demonstrate a clear route/plan showing how the WEC system design concept will lead to the delivery of the long-term cost and performance targets detailed in the ETI/UKERC Marine Energy Technology Roadmap considering the whole system (including the WEC device, fixations, sub-sea infrastructure and on-shore electrical grid connection) and its full lifecycle (including installation and retrieval for deployment and maintenance) and including justification of the claims for cost reduction through clear financial modelling and explicit explanations for the assumptions on which it is based;
- (c) determine the optimal WEC system demonstration routes to verify these benefits (which will form the bulk of the activities for Phase 2); and
- (d) assess the market opportunity for the WEC system concept in both UK territorial waters and separately globally. This assessment shall provide further evidence (beyond what is provided in the proposal) of the viability of any aspect or elements of the system necessary to exploit the market opportunity. This should consider any limitations imposed by any factors related to production and installation rates, including any constraints related to material or skills resource, permitting, environmental considerations or impacts on other industries. If relevant, validation of the aspects or elements of the system that would mitigate the identified limitations should be undertaken.

It should be noted that whilst the sub-sea electrical infrastructure, where relevant, should be considered as part of the analysis and the LCoE calculations, detailed design of these elements is not required since this work is being undertaken elsewhere in the ETI's project portfolio.

In addition, although the WEC system design concept (described in point (a) above) should be able to deliver a total peak power output of at least 10MW, the demonstration (to be carried out in Phase 2) can have a lower output as long as the capability of the technical improvements remains verifiable.

Given that the demonstration is likely to require a very significant financial investment, the proposal for it (that is delivered as part of Phase 1, as described in point (c) above)

⁷ The total cost of operating and maintaining the array, again applicable to a circa 100-200 MW sized array of WEC devices; typical maintenance interventions over a period of 5 years shall be assumed for the calculation

⁸ The expected energy extraction rate of the array; calculated from the anticipated MWh yield of the array in typical UK waters as a proportion of the total number of MWh that would be delivered in the same period if the WEC devices within the array were operating continuously at maximum output

⁹ The expected number of hours that the array would be available for operation in a year (i.e. 8760, less the planned downtime over a year, less the expected unplanned downtime over a year)

¹⁰ The total LCoE of the array (assuming 10% discount rate and 20 years' commercial operation)

must include details of any other investment partners and how they will each contribute financially to the delivery of the demonstration phase.

Access to a suitable demonstration site, and acquiring the relevant consents and licences are key risks to the Project. Respondents should identify how they will address these risks which should include identifying application procedures, timescales and costs. The level of residual risk in this area will influence the selection process.

A stakeholder engagement plan that will enable specific insights from the project to be shared should also be provided.

Phase 2

Phase 2 will be a WEC system demonstration where the new innovations identified in Phase 1 will be developed and demonstrated at full scale in a representative¹¹ operational offshore environment.

Particular emphasis should be placed on ensuring the chosen environment can fully test the capabilities of the developments, and is representative of likely commercially viable sites.

During this Phase opportunities shall be explored for engagement with other industry representatives (including WEC device developers, utilities and offshore contractors) to highlight potential barriers to the generic applicability of the solutions.

1.6.2. Commercial and Legal Requirements

There are aspects of the Project Contract that are of particular importance to the ETI. The ETI expects that the Respondents provide an initial detailed view on these aspects in any proposal as part of the Statement of Compliance to set out any areas where the ETI's position is considered to be problematic for the Respondents. This will also form the basis of the initial negotiation as set out in Section 2.2. The most important issues that the ETI would like to highlight for initial consideration are as follows:

Intellectual Property:

- (a) The ETI expects a commercial return on its investment in the Project as set out in the Value Proposition in Section 1.5 above. This commercial return can be in the form of access to Arising IP from the Project, a return on investment in terms of royalties from the exploitation of Arising IP, preferential pricing or preferential access to novel products and/or services arising from the Project for its Members or a mixture of all of the above;
- (b) The ETI expects that Respondents will review the ETI's contractual mechanisms for dealing with Arising IP and Background IP in the ETI's Project Contract in relation to its proposed Value Proposition. The Respondents should provide comments in their Proposal on the ETI's standard mechanisms in the Project Contract to deal with Arising IP and Background IP such as licensing of Arising IP to the ETI, terms for the licensing of Background IP both during the Project and after the Project for the exploitation of Arising IP and requirements under the general IP conditions for protection and maintenance of Arising IP;
- (c) If the Respondents have any fundamental issues with these mechanisms, the ETI expects the Respondents to make alternative suggestions regarding how the Arising IP and Background IP will be dealt with under the Project Contract if the standards

¹¹ An appropriate tank testing facility may be used for certain specific elements of the demonstration as a means for reducing the risk of subsequent offshore tests during this same project but only if it is suitable for verifying those specific elements.

mechanisms are not appropriate. Note that certain areas of value return such as royalty mechanisms are not set out in the Project Contract and the Respondents should provide an outline view of how they propose to deal with royalties from a contractual perspective if royalties are part of the Respondents' Value Proposition.

Indemnities

- (d) The ETI will fund this Project but has no control over any risks and associated liabilities that may arise from the Project. Therefore the Project Contract contains a number of indemnities for the ETI including for third party claims and for IP infringement. Respondents should review and comment on the indemnity position in the Submission.

IP Warranties and Due Diligence

- (e) The Project Contract contains a number of warranties and undertakings related to IP. The ETI will conduct an appropriate level of due diligence before the start of the Project which relates to IP and the IP warranties. The wording of any warranties may be amended to reflect due diligence performed as further set out in Appendix C of this Request for Proposal.

1.6.3. Phase 1 Deliverables and Acceptance Criteria

The specific deliverables for Phase 1 should be proposed by the Respondents and these will be agreed, together with the acceptance criteria, as part of the negotiation process. However, as a minimum, the Phase 1 deliverables should include:

- (a) Reports including:

- (i) Techno-economic study – detailing the potential for reduction in LCoE of the overall WEC system, with supporting evidence including clear financial modelling and explicit explanations for the assumptions;
- (ii) A design concept for a WEC system – optimised to deliver the lowest LCoE; detailing the material elements of the system, its deployment, its operation and its maintenance that deliver the reduced LCoE and how they impact this and the overall performance of the system;
- (iii) Detailed design of specific innovations within the WEC system design concept – incorporating how the innovations enable the cost targets to be met;
- (iv) Development and test plans, to be carried out during Phase 2, for the specific innovations incorporating how the specified developments enable the cost targets to be met;
- (v) A detailed assessment of the market opportunity for the WEC system that will consider factors that may affect potential deployment, production and installation rates;
- (vi) Specific innovation detailed designs and phase 2 further development and test plans – incorporating how the specified developments enable the cost targets to be met;
- (vii) WEC system demonstration plan (including site selection, consents and licensing etc);
- (viii) Health and safety management plan for Phase 2;
- (ix) A detailed costed proposal for Phase 2; and
- (x) A stakeholder engagement plan.

- (b) A patent study:

The patent study, which shall be carried out by a chartered European patent attorney, will assist in determining whether the proposed Phase 2 Project can be conducted without infringing valid intellectual property rights of third parties. The study will relate to any patents which will form part of the Background IP for Phase 2 of the Project.

The patent study will not be required until the Participant(s) is under contract for Phase 1 of the Project, and the ETI will approve the scope of the study and the patent attorney proposed.

The study will be at the Participant's expense, although the scope expected is such that costs are unlikely to exceed £15k.

In addition to this minimum set of deliverables, Respondents should comply with the requirements in section 1.9 for Project Governance.

1.6.4. Phase 2 Deliverables and Acceptance Criteria

The deliverables for Phase 2 will be defined during Phase 1 and will be agreed, together with the acceptance criteria during Phase 1 and prior to the commencement of Phase 2.

1.7. Project Health, Safety and Environment (HSE)

The ETI's approach to the management of HSE in projects is based on three key elements:

- Competency Assessment;
- Performance Assurance; and
- Project Incident Protocol.

How the ETI applies this approach to a specific Project depends upon the nature and content of the Project¹².

Respondents should ensure their Proposal makes the nature of the Project clear, demonstrates their competency to undertake the Project, and describes how they intend to organise themselves and manage health, safety and environmental issues in the Project. Specifically:

- (a) Respondents should advise if any work to be undertaken during Phase 1 of the Project is not desk based (e.g. site visits, field trials, experimental or laboratory work);
- (b) Respondents should identify any specific HSE issues related to specific facilities or sites to be used in the Project. To the extent that parts of the Project take place outside of the UK, the Respondents should deal with the analogous issues as they apply in the local laws of the relevant country;
- (c) Details of the Respondent's proposals to appoint a CDM Coordinator for Phase 1, and a Principal Contractor for Phase 2 should be included in the Proposal;
- (d) The ETI expects that the Lead Coordinator or Prime Contractor will elect to act as Client and details should be included in the Proposal to confirm which Participant will elect to be the Client;

¹² The design work in Phase 1 of this Project and the design and demonstration work in Phase 2 of this Project will fall under the CDM Regulations, with at least Phase 2 being notifiable under the CDM Regulations.

- (e) Respondents should demonstrate their experience of identifying and managing HSE issues in projects of equivalent complexity and scale, including:
 - (i) Coordination of HSE across multiple contractors, if applicable;
 - (ii) Incorporating safety into design, if applicable;
- (f) Respondents are required to provide evidence throughout the Project that HSE is being managed and that such arrangements are adequate. The Respondents are required to set out in their Proposal how their management arrangements will enable such evidence to be provided.
- (g) Respondents should set out their approach to managing contractors. This should include key roles and responsibilities of different Participants in the Project.

The Respondent should note that:

- Specific health and safety requirements will be included in the Project Contract including reporting against health and safety performance on a periodic basis;
- The ETI will carry out a full HSE competency assessment against the Respondents (the Prime Contractor and the members of any Consortium) prior to contract award; and
- The ETI will wish to explore the management of environmental issues with the Respondent prior to contract award.

1.8. Project Organisation Structure

It is likely that a number of Participant organisations / entities may be required to work together in order to provide all the necessary knowledge, skills, experience and inputs to complete the Project. In this case Respondents may choose either:

- (a) to form sub-contracts between themselves and one of their number who shall act as 'Prime Contractor', shall enter into the Project Contract with the ETI to manage the Project and act as primary interface with the ETI; or
- (b) to form a Consortium to enter into the Project Contract with the ETI, governed by its own Consortium Agreement and led by a 'Lead Coordinator' to manage the Project and act as primary interface with the ETI.

The ETI has a strong preference for the contracting structure to be based on the Prime Contractor arrangement. However, in both cases there must be a single organisation (Lead Coordinator or Prime Contractor) leading and acting as the primary interface with the ETI. This organisation shall appoint a Project Manager to lead and coordinate all activities of the Project Participants, and to liaise regularly with the ETI's Project Manager to whom he/she is accountable on behalf of the Participants. This organisation shall also act as the Respondent for the purposes of this Request for Proposals.

Under either contracting arrangement, it is critical that the Lead Coordinator or Prime Contractor is sufficiently empowered to lead the Project and accept accountability for delivery to the ETI. It is also important that the arrangements enable sufficient flexibility for ongoing delivery optimisation to maximise value for money and achieve the project outcomes. In the case of option (b) above, in which there is no natural contractual hierarchy, bidders are required to explain fully in their Proposal the agreed principles of their Consortium Agreement.

It is a requirement that the ETI approves:

- (a) any Consortium Agreement;

(b) any Sub-contractor (and may review Sub-contracts).

The ETI places great emphasis on two critical roles in the delivery of major projects – Project Manager and Chief Technologist.

The Project Manager is responsible for managing and progressing the project team and programme of work to time and cost, handling information flows and commercial issues, ensuring effective team-working and the continued engagement and support of key stakeholders. In essence this responsibility is to make sure that the ETI benefits from a result at the end of the programme of work that meets the agreed outcomes within time and cost.

The Chief Technologist is responsible for the technical quality and content of the work, ensuring the competence of key technical staff allocated to individual work packages, the effective review of key outputs and the effectiveness of detailed technical planning to ensure that the emerging results of work are fed back into the forward plan. In essence this responsibility is to assure the technical quality of the Project and its outcomes.

The ETI will assess the competence, experience and authority of these two people and their ability to work together as critical to Project success. The Project Manager and Chief Technologist do not need to be from the same Participant organisation.

The ETI expects these two roles will be filled by the same people throughout the life of the Project. However if a Respondent believes that the different phases of the Project require different skill sets and therefore different people in Phase 2, these individuals should also be identified in their Proposal. Further, the Proposal should also explain how continuity from Phase 1 to Phase 2 will be maintained if either the Project Manager or Chief Technologist is varied.

Respondents should identify specific separate named individuals for these key positions, including deputies, and other key roles as appropriate. Respondents should state the amount of each individual's time which will be dedicated to the Project, and detail their experience – with CVs included in an Appendix (maximum 2 pages per individual).

1.9. Project Governance

Throughout the duration of Phase 1 of the Project the ETI expects to hold monthly review meetings with the Project Manager and Chief Technologist, which may be at the ETI or contractor's premises as appropriate. The ETI may involve advisors, external consultants, key industrial stakeholders, or representatives from the Members as appropriate.

The ETI expects that Phase 1 of the Project will contain a Project kick off meeting, a Stage Gate review, a single Project review, and a final presentation. In addition, the Respondents will be required to support the ETI Stage Gate process between Phase 1 and Phase 2 at their own cost.

The timing and scope of the reviews within Phase 1 are as follows:

- (a) Project Kick Off: This will be held within two weeks of the Project start date. The purpose of the meeting is to review within the team and the ETI the scope of the Project, planned timescales, deliverables, and the way of working and interfacing with the ETI. It is anticipated that this review will be held at the Respondent's premises and take no longer than one day.
- (b) Stage Gate Review: This will take place when all of the potential innovations have been identified and assessed. The review will include an explanation of the innovations, and how they combine to meet the performance targets identified in

1.6.1. It is anticipated that this review will be held at the ETI's premises and take no longer than one day.

- (c) Project Review: This will be held on completion of the development plans for the chosen innovations, and when the demonstration approach has been finalised. The review will include an explanation of how the demonstration plan will provide sufficient credibility that the innovations proposed could be exploited readily, and that the performance targets in 1.6.1 will be met. It is anticipated that this review will be held at the ETI's premises and take no longer than one day.
- (d) Final Presentation: This will be held at the end of Phase 1 at the ETI's premises and take no longer than one day. The presentation should cover all of the results of Phase 1, including the proposal for Phase 2 of the Project.

The Project Governance for Phase 2 of the Project will be defined and agreed during Phase 1 of the project.

1.10. ETI and State Aid

Funding from the ETI for this Project will constitute state aid. The ETI has a specific state aid clearance from the European Commission. A copy is available on request. In relation to their Proposals, Respondents should note:

- (a) Further information may be required to support the specific state aid requirements of any Proposal during the procurement process;
- (b) Successful Respondents will be required to provide full transparency of costs throughout the Project to ensure both the Participant(s) and the ETI comply with EU state aid law; and
- (c) Participants will need to agree to certain contractual obligations related to the state aid requirements including the duration of the retention of records, and obligations to return ETI funding in certain exceptional circumstances.

2. Procurement Process

2.1. Procurement Approach

The Project will be split into two phases as explained in section 1.6.

The ETI intends to select either 1 or 2 Respondents to conduct Phase 1 of the Project, and then to select 1 Respondent to advance to Phase 2.

The ETI will only select Respondents who have the required skills, experience and capability either themselves or within their Sub-contractors/Consortium to complete both phases of this Project, and it is the intention of the ETI to move swiftly and smoothly from Phase 1 to Phase 2. Respondents may wish to add members to their team for Phase 2 and/or change their internal contracting structure between Phases, but this should be identified in their Proposal.

The ETI's preference is for a Prime Contractor to lead and manage the Project in Phase 2, with the same Prime Contractor either acting as a Prime Contractor or as a Lead Coordinator for Phase 1, if a Consortium approach is considered more appropriate.

The ETI expects Respondents to make a financial contribution to Phase 2 of this Project, and the level of contribution identified will contribute to the selection process. Financial contributions to Phase 1, whilst not essential, will also be considered within the selection criteria.

Phase 1 is expected to take approximately 1 year to complete, and Phase 2 approximately 3 years.

2.2. Initial Negotiation

The ETI has highlighted a number of legal and commercial requirements in section 1.6.2 which often cause protracted discussions during negotiation and contract shaping, which in turn results in delay to projects starting.

The ETI wishes to avoid excessive delay and is therefore:

- (a) Highlighting those issues which are most likely to require clarification and detailed discussions (section 1.6.2)
- (b) Providing opportunities for bidders to engage with the ETI prior to submitting their Proposals (section 3.1)

In addition to these measures, the ETI intends to select more Respondents for the initial negotiation than it will eventually contract with. The ETI will work with those initially selected for an intense period prior to Phase 1 negotiations to attempt to reach agreement in the majority of the most difficult areas.

At the end of this initial negotiation period, the ETI will review progress and, if there are outstanding issues, form a view of the likelihood of reaching agreement with the Respondents in a timely manner. The ETI will then select up to 2 preferred Respondents to go forward to detailed Phase 1 and initial Phase 2 negotiations.

In their response to this RfP, Respondents should indicate that they will be able to provide sufficient resources of the correct type (i.e. technical, commercial and legal) to support the initial negotiation period. Respondents are also required to name their lead commercial negotiator in their Proposal, and, if responding as a Consortium, how the lead negotiator will reach agreement with Consortium Members. Failure to support this initial negotiation adequately may result in elimination.

2.3. Phase 1 Negotiations

The ETI will invite the preferred Respondents to enter into a more detailed phase of project shaping, including due diligence and detailed contract negotiations. Whilst this element of the negotiation will be focused on the content of Phase 1 of the Project, it will also address any outstanding issues which might delay Phase 2 agreement.

This phase of the negotiation will require a planned and structured approach including weekly legal and commercial discussions. A detailed schedule will be agreed during the initial negotiations but with a minimum requirement for legal/commercial face to face meetings every two weeks in parallel with technical negotiations to ensure a swift negotiation process. The ETI expects this phase of the negotiation to take approximately 10 weeks.

In their response to this RfP, Respondents should indicate that that they will be able to provide sufficient resources of the correct type (i.e. technical, commercial and legal) to support the Phase 1 negotiation, and their commitment to a regular planned negotiation schedule.

The Project shaping and contract negotiation phase will include the following activities (as required and dependent on the level of detail provided in the Respondent's proposal):

- (a) Negotiation and agreement of the detailed commercial offer;
- (b) Detailing of the proposed technical programme, including definition of deliverables and acceptance criteria;
- (c) Detailing and agreement of Project Stage Gates, where project performance, and the business case are critically reviewed and decisions taken on whether to proceed with the Project;
- (d) Detailing and due diligence relating to the breakdown of costs of the Project;
- (e) Further intellectual property due diligence and other due diligence activities as required: refer to Appendix C for further details;
- (f) Negotiation and agreement of outstanding contractual issues;
- (g) A health and safety competency assessment;
- (h) Agreement (and approval by the ETI) to terms of other key contractual arrangements (e.g. Sub-contracts, Consortium Agreement);
- (i) Gaining all necessary Respondent and ETI approvals to undertake the Project; and
- (j) Any further information or assessment that may be necessary to meet state aid requirements.

2.4. Phase 2 Negotiations

Respondents will be expected to enter negotiations for Phase 2 early during Phase 1 delivery, such that negotiations are approaching a conclusion at the end of the delivery of Phase 1 of the Project. The objective of these negotiations will be to reach substantive agreement on all issues relating to Phase 2, and to ensure a speedy transition from Phase 1 to Phase 2 of the Project. The ETI expects a maximum of three months will be required between the completion of Phase 1 and the commencement of Phase 2.

3. Request for Proposals Process and Terms

3.1. Response to Request for Proposal

Respondents are required to enter into a non disclosure agreement (NDA) with the ETI before submitting their Proposal. The form of NDA is provided in Appendix E. Respondents are encouraged to return the NDA as soon as possible, as on return of the signed NDA, the ETI will send out the full draft Project Contract (see also Appendix B for a summary of contract terms and Appendix D in relation to the Statement of Compliance). Signed NDAs should be returned to the ETI following the instructions provided in Appendix E and should arrive at the ETI at latest by 12pm, 2nd December, 2011.

The ETI will be available to meet with potential Respondents on two occasions before the Proposal deadline to answer questions and provide further clarifications. The first of these opportunities may take the form of one to one meetings or an open question and answer event. This will depend upon the number of meeting requests received. The second opportunity to meet with the ETI will be restricted to those Respondents who have indicated their intention to lead a Proposal, and will be conducted in a one to one format. These dates, together with deadlines for requesting appointments and for providing a list of topics for the meetings, are given in section 3.7.

Respondents should note that the ETI will only meet with Respondents in one to one formats who have submitted signed NDAs.

Any advice or clarifications of ETI requirements requested by and provided to any Respondent may be made available to all Respondents to ensure parity of information. Respondents should consider presenting requests for advice and clarifications in a way that the ETI can respond to all Respondents without requiring confidential information.

Those Respondents intending to lead a Proposal, either as a Prime Contractor for Phase 1 and Phase 2, or as a Consortium Lead Coordinator for Phase 1 and Prime Contractor for Phase 2, should indicate their intention to the ETI by email at the address shown on the cover of this RfP, no later than 12pm, 2nd December, 2011. Prior to Submission, an NDA must have been completed by the Prime Contractor, or in the case of a Consortium, each organisation forming part of the Consortium. In the latter case the NDA must have been completed in counterpart with separate copies executed on behalf of each organisation.

Following the closing date, the ETI will convene a selection panel to recommend which Respondents should proceed to initial negotiations. Respondents may be requested to make a presentation to the ETI and the selection panel to support information provided through this Request for Proposal. The panel may also request further clarifications following the selection panel and as part of the initial negotiation period.

In the event the ETI receives a large number of compliant bids, the ETI may make an internal assessment to select a manageable number of bids for consideration by the selection panel.

3.2. Content and Format of Submissions

3.2.1. General

The Proposal should contain a response to all of the requirements contained in this Request for Proposals, and supporting evidence where required or requested. Appendix A explains the structure and content of the Proposal in detail.

3.2.2. Project Approach and Programme of Work

For clarity, the major elements of the Project approach, programme of work and supporting evidence to be included in the Proposal are itemised below:

- (a) Details of the specific focus areas and technical innovations that will be considered during Phase 1 of the project for the WEC system design concept. In each case the Proposal shall include an explanation of why this particular issue has been identified as being important to the delivery of project outcomes;
- (b) An overview of the current state-of-the-art of the WEC devices being proposed including their key technical features and operating characteristics;
- (c) Evidence that the components of the WEC system being proposed have already achieved TRL⁵ 3 or above and are therefore suitable for inclusion in this concept design Project and the subsequent demonstration phase; this evidence shall include details of previous demonstration activities, test & performance data, and ideally details of system costs;
- (d) Details of the anticipated technical and economic benefits that will be delivered by the new WEC system design innovations, and how they will combine to deliver the 2020 technology, system performance and economic targets detailed in the ETI / UKERC Marine Energy Technology Roadmap 2010;
- (e) Preliminary details of the long-term technology and cost improvement plans for WEC systems (beyond the lifetime of this Project) to indicate how the long-term (2030+) ETI / UKERC Roadmap targets² could be achieved by the system under consideration. This should not rely on generic learning curve expectations, but should identify specific verifiable reductions possible through scale (e.g. manufacturing, purchasing, operating) as well as further technical and performance innovations;
- (f) A preliminary description of the market opportunity for the proposed WEC system, considering the scale of potential deployment both in UK territorial waters and globally, as well as limitations imposed by any factors related to production and installation rates, including any constraints related to material or skills resource, permitting, environmental considerations or impacts on other industries.
- (g) Preliminary proposals for the likely WEC system demonstration activities that will be required to verify the technical and economic benefits established in Phase 1 of the Project.
- (h) Preliminary suggestions for engaging with other representatives of the industry to identify potential barriers to the generic applicability of the developed solution. As Phase 1 will inform the format and programme of Phase 2, specific details for how and when this engagement will take place will be confirmed during Phase 1;
- (i) A detailed and fully costed proposal for the delivery of Phase 1 of the Project, containing key technical and economic objectives, work packages, programme of work, key deliverables, project partners and the key risks associated with the delivery of Phase 1;

- (j) An outline proposal for the delivery of Phase 2 of the Project, bearing in mind that the specific demonstration activities will be confirmed during Phase 1 of the Project. This will provide an outline programme of development and demonstration activities that will be confirmed during Phase 1, including identification of suitable/likely test locations and their availability (including any licensing/permission issues), estimated demonstration costs (this shall include how other parties are likely to be engaged to deliver the demonstration phase), and details of other investment partners and how they will each contribute financially to the delivery of the demonstration phase.

3.2.3. Proposal Format

Interested organisations are required to make a collective Submission through their nominated Respondent as described in Section 1.8 above. The Submission shall comprise a detailed proposal with supporting information:

(a) Detailed Proposal:

- Arranged according to the structure set out in Appendix A.
- The content must clearly demonstrate how the Prime Contractor/Consortium will meet the requirements and criteria set out in Sections 1 to 4 of this Request for Proposal.
- The Proposal must be written in a succinct manner and must not include imprecise statements, generalities or repetition.
- The Proposal must be easily readable with appropriate font sizes (11pt or larger), margins, etc, and **shall not exceed a maximum of 35 pages**;

(b) Supporting information to the Proposal as specifically set out in Appendix A, including;

- A description of the cost of energy model and assumptions used.
- A preliminary description of the market opportunity.
- Detailed technical task descriptions
- A detailed risk register
- Due-diligence information (see Appendix C)
- A statement of compliance (see Appendix D)

Additional information (such as organisational brochures, etc) may be provided to accompany the Submission, but such additional information will not be taken into account when reviewing Proposals. The Submission shall consist of **one (1) hard copy and one (1) electronic copy**. The latter shall be provided in both PDF and Microsoft Word formats. The electronic copy must be received by the submission deadline. The hard copy may arrive two or three days later.

3.3. General Selection Criteria

Proposals will be reviewed and judged against the criteria listed below and the supporting evidence supplied. Failure to meet minimum standards in any criterion may result in the ETI rejecting a Proposal.

- Completeness of information content, structure and quality of the Proposal (against the areas listed in Appendix A);
- Delivery of the required Project outcomes detailed in section 1;
- Compliance with the technical requirements detailed in section 1;

- Value for money, including response to the Value Proposition to the ETI detailed in section 1, as well as price;
- Commitment to the full duration of the Project;
- Project Organisation, including strength of Consortium or Sub-contracted Participants engaged in the Project;
- Quality of the response to the commercial and legal requirements; and
- Knowledge, skills and experience, which must include those listed below (a table shall be provided to identify which proposed Project Participants satisfy which criteria).

1. Generic criteria:

- Availability and stability of deployable resources to mobilise sufficiently rapidly and for sufficient durations;
- Availability and suitability of demonstration site(s) for Phase 2;
- Record and ability in quality, timely and on-budget delivery (of technology development programmes) to the full satisfaction of stakeholders;
- Knowledge and previous experience of the marine energy industry, its environment, and its challenges;
- Ability and experience in collaborative working; and
- For the lead organisation in particular, project management expertise and prime contracting experience.

2. Specific technical criteria:

- Detailed technical knowledge of WEC system and array design, WEC technology innovation, device deployment, commissioning and in-service operation;
- Detailed technical knowledge of and significant innovation experience in marine support structure design, installation and deployment;
- Robust understanding of the UK marine energy market environment, its major stakeholders and key industry challenges;
- Detailed knowledge of marine energy system certification requirements and how these are fed through into WEC device and array design;
- Offshore engineering and installation expertise;
- Structural design and marine operations expertise;
- Expertise in techno-economic analysis and trade-off analysis;
- Expertise in electrical machines, hydraulic systems, and general experience in power take-off system design and operation (as required depending on the specific WEC system design);
- Expertise in systems engineering, integration and optimisation (including electrical interconnection, protection and control); and
- Experience of testing WEC systems and scaled arrays in laboratory and real-sea environments, including the management of health & safety.

The ETI at its discretion may request further clarification of a Proposal, and may reject any Proposal which is unclear.

3.4. Selection for Initial Negotiation

All Proposals will be evaluated by the ETI against the selection criteria, and ETI may select, at its discretion, any number of Proposals to go forward for initial negotiation.

As part of its evaluation process, in addition to ETI staff, the ETI will convene a selection panel, comprising experts selected by the ETI to provide the necessary expertise to consider the technical, commercial, legal and financial aspects of each bid. This may include experts drawn from Members and third parties.

3.5. Selection for Phase 1 Negotiations

In addition to the quality of the original Proposal, this selection will be made on the progress made in initial negotiations, and the view of the ETI of the difficulties expected in reaching final agreement. The ETI may convene a second selection panel to discuss the results of initial negotiations and to decide which Respondents to proceed with.

3.6. Selection for Phase 2 Negotiations

Selection for Phase 2 will be based on the criteria above, but with specific emphasis on:

- (a) The clarity of the linkage to the outcomes in section 1.4 and Value Proposition in 1.5;
- (b) Value for money;
- (c) The credibility of the development and demonstration plan;
- (d) The credibility of the Respondent to manage and deliver the plan on time and within budget, including performance in Phase 1 of the Project;
- (e) The quality and credibility of the health and safety management plans;
- (f) The level of financial contribution of the Respondent to the Project; and
- (g) The ease and speed with which Phase 2 can be contracted, based on the status of Phase 2 negotiations.

Delays to the commencement of Phase 1, during the delivery of Phase 1, or not being ready to commence Phase 2 in a timely manner, may result in a Respondent not qualifying for consideration for Phase 2.

3.7. Procurement Schedule

The following tables outline the anticipated schedule for responding to this Request for Proposals, selection, and negotiation. The timing and the sequence of events may vary and shall ultimately be determined by the ETI.

| Request for Proposal and Selection | Anticipated Date(s) |
|--|----------------------------------|
| Issue of request for Proposal | 28 th September, 2011 |
| First deadline for requesting a clarification appointment | 21 st October, 2011 |
| First deadline for submitting clarification topics | 24 th October, 2011 |
| First clarification meetings | 27 th October, 2011 |
| Deadline for submitting a signed NDA (required in order to receive a draft Project Contract) | 2 nd December, 2011 |
| Deadline for submitting intention to submit a Proposal as a Prime or Lead Coordinator | 2 nd December, 2011 |
| Second deadline for requesting a clarification appointment | 8 th December, 2011 |
| Second deadline for submitting clarification topics | 8 th December, 2011 |
| Second clarification meetings (Prime or Lead Coordinators) | 15 th December, 2011 |

| | |
|---|---------------------------------|
| Only) | |
| Closing date for submission of Proposal | 25 th January, 2012 |
| Preferred Respondent(s) notified for initial negotiation (target) | 17 th February, 2012 |

| Initial Negotiations | Anticipated Duration |
|--|----------------------|
| Appropriate resources required at following meetings: | |
| Identification and resolution of major legal and commercial issues, and selection for Phase 1 negotiations | 6 weeks |

| Phase 1 Project Shaping and Contract Negotiations | Anticipated Duration |
|--|----------------------|
| Appropriate resources required at following meetings: | |
| Total duration for Project shaping and contract negotiations | 10 weeks |
| Specific dates to be fixed during initial negotiations (the ETI requires legal and commercial meetings at least every two weeks) | |

| Phase 1 | Anticipated Date(s) |
|----------------------------------|-------------------------------|
| Contract Award (target date) | 15 th June, 2012 |
| Project start | 2 nd July, 2012 |
| Latest anticipated Phase 2 start | 1 st January, 2014 |

3.8. Disclaimer Notice

- (a) The ETI at its discretion may request clarification of a Proposal, and may reject any Proposal which is unclear.
- (b) Neither the issue of any documentation in the Request for Proposals process nor any of the information presented in it should be regarded as a commitment or representation on the part of the ETI or any other person to enter into a contractual arrangement. The Request for Proposals is not an agreement to purchase goods or services, and the ETI is not bound to enter into any contract with the Respondent. By responding to this Request for Proposals, the Respondent does not commit itself to entering into a contract with the ETI.
- (c) All decisions made by the ETI relating to the acceptance, review and selection or otherwise of Proposals are final.

- (d) 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 terms of the non disclosure agreement (Appendix E). No part of a Proposal, or documents provided by Respondents, shall be returned.
- (e) The ETI reserves the right to (i) change the basis of, or the procedures for, the Request for Proposals process, including the timetable or closing date, (ii) make modifications to, or alter any of the information within, the Request for Proposals at any time until the execution of the Project Contract, (iii) reject any or all of the Proposal received, and (iv) not invite any Respondent to proceed further. In cases (i) and (ii) the ETI shall provide a minimum of five working days written notice.
- (f) Neither the ETI nor any of its agents or advisers accepts any liability or responsibility for the accuracy, adequacy or completeness of any of the information provided or any opinions contained in this Request for Proposals or of any other information made available during the Request for Proposals process. No representation or warranty, express or implied, is or will be given by the ETI or any of its agents or advisers with respect to such information provided or opinion given therein. Any liability is thereby expressly disclaimed.
- (g) Respondents must assess the information and terms contained in this Request for Proposals independently, having taken professional advice if necessary. The Respondent will be deemed to have examined all the documents enclosed with this Request for Proposals and by its own independent observations and enquiries will be held to have fully informed itself as to the nature and extent of the requirements of the Request for Proposals. The Respondent must rely on its own enquiries and on the terms and conditions contained in any agreement, when and if finally executed, subject to such limitations and restrictions as may be specified therein.
- (h) Respondents shall be wholly responsible for the costs they incur in the preparation and submission of their responses to the Request for Proposals. The ETI shall not be responsible for, and shall not pay, any costs and expenses which may be incurred by the Respondent in connection with its participation in the Request for Proposals process, including but not limited to any costs or expenses incurred up to the execution of the Project Contract.
- (i) The ETI may, at its discretion, shortlist Respondents for the next stage of negotiation. The ETI does not undertake to accept the lowest bid or to accept part or all of any Proposal and the acknowledgement of receipt of any Proposal shall not constitute any actual or implied agreement between the ETI and the Respondent.
- (j) The submission of a Proposal will confirm acceptance of the foregoing provisions by the Respondent without qualification. Any attempt to qualify any of the foregoing provisions in this Disclaimer Notice, either expressly or impliedly, may result in a Respondent being disqualified.
- (k) The copyright in the documentation and any other materials supplied by the ETI and/or its advisers in this Request for Proposals process, in whatever format, belongs to the ETI or its appointed advisers. Such documentation and materials may not, either in whole or in part, be copied, reproduced, distributed or otherwise made available to any other third party or used without the prior written consent of the ETI, except in relation to the preparation of the Proposal in the course of the Request for Proposals process. All documentation supplied by the ETI in relation to this Request for Proposals process must be returned on demand, without any copies being retained by the Respondent.

- (l) This Request for Proposals, and any dispute or claim arising out of or in connection with it (including any dispute or claim relating to non-contractual obligations), shall be governed by and construed in all respects in accordance with the laws of England and the parties agree that the Courts of England shall have exclusive jurisdiction to settle any dispute or claim arising out of or in connection with this document (including any non-contractual disputes or claims).

4. Project Funding and Payment

The ETI intends to fund Phase 1 of this Project on a **“Fixed Price”** basis, and has set aside a sum of approximately £1m to fund up to 2 parallel Phase 1 contracts. The ETI does have some degree of budgetary flexibility if a proposal offers exceptional value return to the industry and the Members.

The ETI intends to agree a contracting form with the selected Respondent for Phase 2 which reflects a sharing of risk and benefit, for example a target cost with incentive fee mechanism. The exact nature of this mechanism will depend upon the content of the Respondents' Proposal, and Respondents should propose their preferred Phase 2 contracting structure as part of their Proposal, and their commitment to agreeing the Phase 2 structure prior to the end of the delivery of Phase 1.

Any costs associated with the negotiation of Phase 2 terms and conditions should be excluded from Phase 1 costs, and should be borne by the Respondents.

Activities during Phase 1 associated with the preparation of a demonstration site for Phase 2 should be restricted to those which cannot reasonably be undertaken during Phase 2 without significantly increasing cost or technical or schedule risk. Those costs that need to be incurred during Phase 1 to prepare a demonstration site should be included as part of the Fixed Price total, but they should be clearly identified within that total.

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 the ETI acceptance of a milestone completion report. Unless otherwise agreed as part of a formal contract variation process, the ETI shall not be liable for any payments above the maximum stated in the Project Contract.

Respondents are required to propose a suitable milestone plan for Phase 1 of the Project, noting that the ETI does not provide advance funding, and that no more than four Payment Milestones per year will be considered.

5. Terms and Conditions for Project Contract

The Project will be governed by a Project Contract. A summary of the key terms and conditions of the Project Contract are included in Appendix B of this RfP. The final Project Contract will incorporate appropriate information from the ETI's RfP, the Respondent's Proposal and information drawn up and agreed during Project negotiation.

As indicated in Section 2, Respondents are invited to submit a signed non-disclosure agreement in the form included at Appendix E of this RfP. On receipt of the properly executed non-disclosure agreement, the ETI will release the full terms and conditions of the draft Project Contract to the Respondent.

The Respondents are required to confirm their acceptance of (or identify any exceptions to) the terms and conditions of the full Project Contract in the Statement of Compliance (see Appendix D).

The ETI will review and approve:

- (a) terms of any key Sub-contracts;
- (b) any third party funding agreements;
- (c) any third party IP licensing arrangements; and
- (d) dependant on Project structure, the Consortium Agreement between the Consortium Members

prior to signature of the Project Contract with the ETI. A model Consortium Agreement is available from the ETI.

Appendix A Content and Format of Proposals

1. **Executive Summary** *[maximum 2 pages]*

A summary of the Proposal, describing briefly:

- The organisation / Consortium undertaking the work;
- Summary of the predicted cost of energy outcomes and the technical approach and **key** deliverables;
- Confirmation of compliance with the Request for Proposals and brief summary of **key** exceptions/deviations; and
- Total Phase 1 Project cost and duration, estimated Phase 2 Project cost and duration.

2. **Background to Proposed Participants** *[max. 4 pages, plus appendices if required]*

2.1 **Project Participants** *[maximum 2 pages]*

This section should include a description of the organisations involved, and a summary of their knowledge, skills and experience in tabular form against the selection criteria (see section 3.3 of the RfP).

2.2 **Key Individuals and Roles** *[maximum 2 pages]*

This section should identify all key individuals (and deputies where appropriate) and all key roles. This should include, in detail, the Project Manager and Chief Technologist (see section 1.7 of the RfP).

In addition, this section should clearly identify the key individuals required to complete the initial and subsequent negotiation phases, and a commitment that these resources will be made available and are committed to the planned approach to negotiation (see sections 2.2 and 2.3 of the RfP).

2.3 **Contracting Structure** *[maximum 1 page]*

This section should briefly explain the Respondents' contracting structure, either as a Prime Contractor, or as a consortium with a Lead Coordinator for Phase 1. In the case of Consortium this section should explain how the Consortium will operate, and specifically how agreement will be achieved with all Consortium Members during negotiation (see section 2.2 of the RfP).

The Prime Contractor for Phase 2 should be clearly identified, and if additional sub-contractors are expected to join in Phase 2, these should be identified (see section 2.1 of the RfP). In addition the proposed contracting structure for Phase 2 should be outlined (see section 4 of the RfP).

3. **Project Description and Programme of Work** *[max. 15 pages, plus appendices]*

3.1 **Approach**

Responses to items (a) to (h) in section 3.2.2 of the RfP should be provided in summary form, with supporting details supplied in appendices where necessary.

The approach taken to quantifying the LCoE should be consistent with that supplied in Annex 1 to this Appendix.

[Note that appendices to this section of the submission must be supplied describing (a) the Cost of Energy model and assumptions used, and (b) a preliminary description of the market opportunity. Other appendices may be supplied if required]

3.2 Description and Programme of Work for Phase 1

The programme of work to be undertaken in Phase 1 of the Project should be described. See section 3.2.2 of the RfP, point (i)

The description should include a task by task breakdown of the proposed work, identifying for each task:

- The task leader and others involved;
- The task objectives;
- Dependencies;
- The technical approach (e.g. methodologies, tools, techniques);
- Deliverables produced (labelled D1 to Dn)
- Issues or Assumptions

The inter-dependencies between Tasks should also be identified.

[Note that an appendix to this section should be supplied in sufficient detail to form the basis of the technical schedule for the Phase 1 contract]

3.3 Outline Description and Programme of Work for Phase 2

Phase 2 of the Project should be described in as much detail as possible, noting that this will need to be refined during Phase 1 execution. See section 3.2.2 of the RfP, point (j).

4. Project Management *[maximum 4 pages, plus appendices]*

4.1 Project Organisation *[maximum 1 page]*

This section should explain in more detail the contracting structure amongst the Respondent's team, with any supporting information required by section 1.7 of the RfP. The Respondent should the role of each Participant in the structure and the position of key individuals.

It should also explain how the Project will be managed (e.g. monthly meetings, design reviews, steering groups etc).

Any differences between Phases 1 and 2 should be identified.

4.2 Project Schedule *[maximum 1 pages]*

A detailed schedule for Phase 1 should be submitted, including all deliverables. An outline schedule for Phase 2 should also be submitted.

4.3 Deliverables and Payment Milestones *[maximum 1 page]*

The Respondent should provide a summary of all deliverables for Phase 1 and those proposed for Phase 2, including those required for Project Governance. This section should also propose acceptance criteria, and desired payment milestones (see sections 1.6.3, 1.6.4 and 4 of the RfP).

4.4 Risk Management *[maximum 1 pages, plus risk register as an appendix]*

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). Any differences in approach between Phase 1 and Phase 2 should be identified. The Respondent should also separately provide a risk register, identifying the key challenges, risks (including any assumptions or dependencies identified), issues and opportunities which may affect the successful delivery of the Project outcomes and identifying planned activities to address / mitigate each item.

A summary of key risks should be included in this section, with a complete risk register as described above provided as an appendix.

4.5 **Health, Safety & Environment Management (HSE)** *[maximum 1 page]*

In this section Respondents should give evidence of their competence to undertake this Project, and to summarise their approach to manage and coordinate HSE in the Project, in both Phases 1 and Phase 2 (see section 1.7 of the RfP).

The Respondent should also set out any key HSE risks in the risk register in section 4.4 above.

5. **Commercial and Legal Requirements** *[maximum 5 pages, plus appendices if required]*

5.1 **Value Proposition**

This section should articulate how the completion of both phases of this Project will create value for the Respondent, the ETI, its Members, and the wider UK economy (see sections 1.5 and 1.6.2 of this RfP). Respondents should include a tabular response based on possible value categories in section 1.5 of the RfP.

5.2 **Intellectual Property**

Arising IP

As well as Background IP, the Respondent should provide a brief overview of the nature of any anticipated Arising IP from each stage of the Project, in particular, in what areas of the technology and what form of intellectual property rights. This should expressly include reference to development in any existing technology, any innovations, any results and know-how.

(a) The Proposal should identify which Participant would own each item of Arising IP and the reasons why such Participant should be the owner, including details of:

- the overall contribution of such Participant;
- the Intellectual Property experience and capabilities of such Participant which would justify granting it the rights and obligations of ownership, protection and maintenance of such Arising IP; and
- any other reasons why such Participant should be the owner of the Arising IP.

(b) The Respondent should provide details of the anticipated use or licences of Arising IP by the Participants. This should also expressly include:

- reference to development in any existing technology, any innovations, any results and know-how; and
- the sublicensing rights that will be need in order to commercialise the technology.

(c) The Respondent should confirm the licences to be granted to ETI Members to exploit the Arising IP. Where the Respondent proposes an exception to this and the drafting in the Project Contract, Respondents should set details of the exception out together with (a) reasons for the proposed exception and (b) the alternative value (e.g. royalty return or other value) offered to the ETI Members in return for waiving these rights. Respondents are strongly advised to consult the ETI before proposing exceptions to the ETI's standard requirements for Arising IP.

The Respondents should indicate in Section 5.1 how their Value Proposition relates to the Arising IP identified in this section.

Background IP

The Respondent should describe any Background IP (e.g. patents, proprietary data, computer algorithms, know how or other IP) only to the extent there is Background IP:

- which is needed (whether by the ETI, or to be licensed from one Participant to another Participant or a Sub-contractor, or to be licensed by a Sub-contractor to a Participant or to another Sub-contractor, or otherwise) 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 (including the legal nature of the IP right);
- rights to that IP; and
- ownership and control, whether this is by any of the Project Participants or by any third parties.

Academic Institutions/Publishing:

Generally, the ETI will grant rights to Participants who are academic institutions for the purposes of academic research and teaching if requested. Publication of appropriate parts of the Project results will generally be permitted subject to an approval process. Participants should include details of their desired requirements in relation to academic research, teaching and publication in their Proposal.

5.3 Statement Of Compliance

The statement of compliance should be included as an appendix to the Proposal, and this section should summarise its content (see Appendix D to this RfP and section 1.6). The Respondent should ensure that the contractual aspects set out in Section 1.6.2 of the RfP are specifically addressed.

The statement of compliance must be signed by the Respondent: if a Consortium structure is proposed, every member organisation of the Consortium must provide a separate statement of compliance.

6. Project Finances [maximum 2 pages]

- (a) The Respondent should provide a **breakdown of the total Fixed Price contract value** for Phase 1 as set out in the following table:
- a **breakdown** by milestones; and
 - in the case of a Consortium Proposal only, this breakdown also needs to specify figures **for each Participant against each milestone**.

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

| | Date | Participant 1 (Lead Coordinator or Prime Contractor) | Participant 2 | Participant 3 | Participant 4 | Participant 5 | Total |
|---------------|------|---|---------------|---------------|---------------|---------------|-------|
| Milestone 1 | | | | | | | |
| Milestone 2 | | | | | | | |
| Milestone 3 | | | | | | | |
| TOTALS | | | | | | | |

(b) The Respondent should also provide a **breakdown of the total Fixed Price contract value for Phase 1**, 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 | | | | | | |
| Sub-contractors (minor) | | | | | | |
| Travel & Subsistence | | | | | | |
| Overheads | | | | | | |
| Profit | | | | | | |
| Other | | | | | | |

(c) The Respondent should also provide a breakdown of any costs (if any) included within the total Project costs for Phase 1 associated with activities required to prepare the demonstration site for Phase 2.

7. Insurance [typically 1/2 page]

The Respondent should confirm that insurance cover for the following risks is held, and should confirm levels of cover and expiry for each. The ETI will require evidence of these during the Project detailing phase.

- Property damage (both any property occupied by the Participants and any third party properties)
- Business interruption
- Employer’s liability
- Public liability
- Product liability (or justify its exclusion if not appropriate)
- Professional Indemnity

- The Respondent should identify if it self-insures for any of these risks.
- The Respondent should identify if it is intending to take out any project-specific insurance for the Project and the scope and intended beneficiaries of such insurance.

8. Contacts list [typically 1 pages]

For each Participant or major sub-contractor please provide contact details for the following personnel:

| | Participant 1 (Lead Coordinator or Prime Contractor) | Participant or major sub-contractor 2 | Participant or major sub-contractor 3 | Participant or major sub-contractor 4 | Participant or major sub-contractor 5 |
|--------------------------------|---|--|--|--|--|
| Organisation registered office | Address | | | | |
| Technical lead | Name Address Tel Mobile Fax Email | | | | |
| Project manager | | | | | |
| Contractual lead | | | | | |
| Finance lead | | | | | |
| Publicity lead | | | | | |
| Any other key personnel | | | | | |

9. Plan for Project Detailing and Project Contract Negotiation [typically 1/2 page]

Respondents must clearly confirm in the submission that their key technical, commercial and legal resources will be available to meet the contract award target date.

10. Due Diligence Information Requirements

This section should confirm that the due diligence information has been provided as an appendix to the Proposal, as defined in Appendix C to the RfP.

Annex 1 to Appendix A: Cost of Energy Information

The Levelised Cost of Energy (LCoE) should be calculated using the following formula and assumptions.

$$LCoE = \frac{C_{cap}\alpha(1 + \alpha)^\beta}{8760LA((1 + \alpha)^\beta - 1)} + C_{op}$$

where

C_{cap} is the Capex associated with the system (further details below)

α is the discount rate, which should be 10%

β is the duration of the project, which should be 20 years (please provide details if this is an inaccurate representation of the proposed system)

L is the load factor of the system (further details below)

A is the availability of the system (further details below)

C_{op} is the opex associated with the system (further details below)

Data should be for a 100-200MW array, located at a representative distance from shore, which should be stated.

As well as providing the below information in relation to your Proposal, areas of cost reduction and performance improvement that would enable the design to reach the 2050 targets should be highlighted. Where possible, the impact of these developments should be quantified.

The level of certainty surrounding these different cost and performance figures should also be provided

Capex, C_{cap}

This should cover the capital costs for the equipment, installation and commissioning of the whole system up to the grid connection point. Costs should be provided in £/kW of peak output.

The grid connection point will be an onshore sub-station. This should be on the basis that the electricity will be supplied to the substation at a standard voltage (e.g. 11 or 33kV) and at 50Hz.

The equipment costs should include:

- WEC devices
- Support structures and foundations
- Sub-sea electrical equipment

The installation costs should include:

- Vessel hire
- Labour and other operational installation costs

The commissioning costs should include:

- Site leasing
- Environmental studies
- Certification

Please provide a breakdown of the capital costs for all of the above as well as any other capital costs that aren't included in the above lists.

Opex, C_{op}

This should cover all costs associated with operation and maintenance of the system, including all equipment replacement and all elements of the different types of maintenance cycles, such as visual inspection, minor replacement and major overhaul. Costs should be provided in £/predicted kWh generated.

Please provide a description of the maintenance tasks that you expect to be carried out within the relevant cycles.

Load Factor, L

The load factor should be provided in terms of the annual yield divided by the annual yield at 100% of output of the system.

This should account for the periods where the system operates without all of its devices.

Availability, A

The availability should be the percentage of time that the system will be operating, i.e. the percentage of time that the system is not undergoing scheduled or unscheduled downtime.

We will be using a discount factor of 10% and assuming a 20 year life for the system. Please let us know if the life of your system would differ from this, by how much and the reasoning behind this.

Annex 2 to Appendix A: Technology Readiness Levels (TRL)

| TRL | Technology status | Description |
|-----|--|---|
| 1 | Basic principles observed and reported | Scientific research begins to be translated into applied research and development. |
| 2 | Technology concept and/or application formulated | Practical applications of basic key principles can be 'invented' or identified. The application is still speculative: there is not experimental proof or detailed analysis to support the proposal. |
| 3 | Analytical and experimental critical function and/or characteristic proof of concept | Active research and development is initiated: analytical studies to set the technology into an appropriate context, and laboratory-based work to physically validate that the analytical predictions are correct. These should constitute "proof-of-concept" validation. |
| 4 | Technology / part of technology validation in a laboratory environment | Following successful "proof-of-concept" work, basic technological elements are integrated to establish that the "pieces" will work together to achieve concept-enabling levels of performance. The validation is relatively small scale compared to the eventual technology: it could be composed of ad hoc discrete components in a laboratory. |
| 5 | Technology / part of technology validation in working environment | At this level, the reliability / scale of the component being tested has to increase significantly. The basic technological elements must be integrated with reasonably realistic supporting elements so that the total applications can be tested in a 'simulated' or somewhat realistic environment (which is almost always the working environment for energy technologies). |
| 6 | Technology model or prototype demonstration in a working environment | A major step in the reliability / scale of the technology demonstration follows the completion of TRL 5. At TRL 6, a prototype going well beyond ad hoc or discrete components is tested in a working environment. |
| 7 | Full-scale technology demonstration in working environment | TRL 7 is a significant step beyond TRL 6, requiring an actual system prototype demonstration in the working environment. The prototype should be near or at the scale of the planned operational system and the demonstration must take place in the working environment. |
| 8 | Technology completed and ready for deployment through test and demonstration | In almost all cases, this level is the end of true 'system development' for most technology elements. This might include integration of new technology into an existing system. Represents the stage at which an example of the technology is tried and tested |
| 9 | Technology deployed | In almost all cases, the end of last 'bug fixing' aspects of true 'system development' and represents the point at which the technology is proven, but not necessarily yet commercially viable in either a free or supported market. This might include integration of new technology into an existing system. This TRL does <i>not</i> include planned product improvement of ongoing or reusable systems. |

Adapted from "Technology Readiness Levels: A White Paper", John C Mankins, Office of Space Access and Technology, NASA, April 6 1995

Appendix B Summary of Terms and Conditions for Project Contract

TECHNOLOGY CONTRACT

Summary of Terms

Introduction

The following represents a summary of the key contractual terms included in the Project Contract. This summary assumes that the Project will be carried out by a single contractor, the Prime Contractor, which may have specific parts of the Project scope sub-contracted, subject to the approval of the ETI. Further/alternative provisions are indicated where relevant in the event that the Project is carried out by a Consortium.

Structure

1. Where the Project will be carried out by a Prime Contractor, the Prime Contractor will manage the Project. Where there are Sub-contractors, the Prime Contractor shall be solely responsible for the management and coordination of the activities of the Sub-contractors. The Prime Contractor will be responsible for and administer payment for all of its Sub-contractors.
2. Where the Project will be performed by a multi-party Consortium, the Participants shall be represented in dealings with the ETI by a Lead Co-ordinator, who shall, in the majority of instances, be the intermediary for any communication between the ETI and the Participants. This role includes providing notices of meetings and other activities to the ETI, reviewing and commenting on project reports (as required under the Project) and administering payment of invoices for all Participants.

Project Management

3. The Prime Contractor or, in the event of a Consortium, the Participants 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.
4. The Prime Contractor or, in the event of a Consortium, the Participants will appoint a Chief Technologist to oversee and assure the technical content of the Project.
5. Where the Project will be performed by a Consortium, the Participants shall form a steering committee to make decisions on day-to-day matters (excluding decisions affecting the overall scope, structure and timing of the Project). The frequency of meetings of the steering committee will be agreed with the ETI. The ETI and its members shall be entitled to attend any meetings of the steering committee.
6. The Prime Contractor or, in the event of a Consortium, the Participants 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 and a final report. Each report must address a specified list of topics required by the ETI.
7. The ETI will require the right to carry out a Stage Gate review on completion of a stage (or from time to time at a frequency to be agreed) 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.

8. The ETI will require that the Project is carried out in accordance with health and safety law and will require reports and information as evidence of such compliance from time to time (tailored to the Project).

Finance

9. ETI will pay a fixed price against defined Payment Milestones for the work done under the Project (as set out at Section 4 of this RfP). Acceptance of deliverables and 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 in the event that such charges are agreed in accordance with the contractual variation control procedure.
10. Costs are payable in sterling and ETI will pay valid invoices within 30 days of receipt of invoice following acceptance of a milestone.
11. 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

12. 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

13. ETI will require the right to audit the Project, the Prime Contractor (alternatively, in the event of a Consortium, the Participants) and any and all Sub-contractors during the Project and, in certain circumstances, up to 7 years from the end of the Project on financial or technical grounds.
14. All 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 Prime Contractor shall require no less obligations from its Sub-contractors.

Sub-contracting

15. Sub-contracting is not permitted without consent, except for agreed known Sub-contractors included/detailed in the Project Contract at signing.

Variation

16. Any variations to the Project must be made via a variation control procedure.

Liability/ Warranty / Indemnity etc.

17. The ETI will require that warranties and undertakings be given by the Prime Contractor or Participants (as appropriate), including without limitation in relation to rights to Background IP and rights granted to Arising IP.
18. The liability provisions relating to the Prime Contractor, alternatively in the case of a Consortium, the Participants, will be tailored on a case-by-case basis but are likely to be capped at the amounts payable under the Project (except in the case of IP infringement claims, certain third party claims (to allocate risk fully to the Participants for the risks of their activities during the Project) or other liabilities which cannot be limited or excluded by law; for these claims, no cap will apply). Recovery of indirect or consequential damages will be excluded. The Prime Contractor will be liable for the acts and omissions of the Sub-contractors.

Withdrawal

19. Withdrawal from the Project is only possible with the express consent of the ETI and, in the event of a Consortium, with the unanimous consent of the other Participants. In such circumstances, the Prime Contractor or withdrawing Participant(s), as appropriate, cannot recover outstanding costs, unless otherwise agreed.

Termination and Suspension

20. The ETI reserves the right to terminate the agreement in certain circumstances (such as breach by the Prime Contractor (which shall include without limitation a breach by a Sub-contractor) or, in the event of a Consortium, a breach by a Participant, insolvency or change of control of the Prime Contractor/Sub-contractor/Participant etc.). The ETI also reserves the right to terminate the agreement unilaterally upon giving a (to be agreed) period of notice to the Prime Contractor or Participants, as appropriate. Upon termination, the ETI will pay the eligible costs incurred by the Prime Contractor or Participants (as appropriate) up to the date of termination.
21. The ETI will reserve the right to suspend the Project in certain defined circumstances.

Intellectual Property

22. The ownership of Arising IP will be agreed on a project by project basis. Appropriate licence provisions will be put in place to ensure adequate rights are granted to the Members and, where relevant, Participants.
23. Participants will be required to licence their Background IP: (i) to other Participants on a royalty free basis where required for the purposes of the Project; (ii) to the ETI or sub-licensees of the ETI, on fair and reasonable terms, where required for the use or exploitation of the Arising IP, where relevant.

Appendix C Due Diligence Information Requirements

The ETI requires due diligence information during two phases: (1) submission of the Proposal and (2) contract detailing and negotiation. Certain information is required with the Proposal as part of the first phase of the procurement process. Further information will be required if any Proposal is selected to proceed to the contract detailing and negotiation.

Please note that successful completion of all elements of the due diligence is a pre-requisite to any contract award: failure to meet due diligence requirements at any stage may result in the exclusion of that Respondent or the Proposal from the ETI's selection process.

1. Submission of the Proposal

1.1 State Aid

The Respondents 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.

1.2 General Due Diligence

The Respondents (except 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 Table 1.

1.3 Insurance

The Respondent should confirm that insurance cover for the following risks is held, and should confirm levels of cover and expiry for each. The ETI will require evidence of these during the project shaping phase.

- (a) Property damage (both any property occupied by the Participants and any third party properties);
- (b) Business interruption;
- (c) Employer's liability;
- (d) Public liability;
- (e) Product liability (or justify its exclusion if not appropriate); and
- (f) Professional indemnity (as set out in more detail below).

The Respondent should identify if it self-insures for any of these risks. The Respondent should also identify if it is intending to take out any project-specific insurance for the Project and the scope and intended beneficiaries of such insurance.

In relation to the Professional indemnity insurance, Respondents should note that the ETI has the following requirements.

Each Participant is required to have in place at the start of a Project a professional indemnity insurance policy (with at least a 6 month unexpired term).

- (g) Each policy should have a limit of indemnity of not less than £1,000,000 each and every loss.
- (h) Each policy should provide an indemnity at least as extensive as the ETI's policy (the ETI will make this assessment). For example, the cover needs to include cover for negligent acts or omissions, and dishonest or fraudulent acts or omissions by the insured).
- (i) Each Participant will need to agree to maintain a professional indemnity insurance policy in force for 6 years from the date of completion of the Project.

- (j) The ETI will require sight of the insurance policy provided by the Participant or a copy of a letter of confirmation from the Participant's insurance company or broker summarising the policy.

1.4 Intellectual Property

The Respondent should provide details of how the proposed technology is protected through intellectual property rights.

This should include a detailed description of all Background IP which is needed to carry out the Project or which may be used during the Project, or, which may be needed by the Members to exploit any Arising IP. The details should include:

- (a) the nature of the IP (including in the case of any registered IP, all applications for or granted registered rights in all jurisdictions);
- (b) rights to that IP;
- (c) ownership and control, whether this is by any of the Participants or by third parties; and
- (d) details of the relationship with the owner of any third party rights identified.

2. Contract Detailing & Negotiation Requirements

These are only required if a Proposal is selected to proceed to the Project shaping and contract negotiations phase, and will include:

- (a) A full health and safety competency assessment which will be carried out by the ETI, to assess the organisation's health & safety management systems and specific technical competence to manage the risks in this Project. Any parts of the Project which fall under the CDM Regulations, will be assessed in line with the CDM Approved Code of Practice, Appendix 4;
- (b) Further intellectual property due diligence. This will include a detailed Background IP questionnaire which the Respondent will be expected to submit to the ETI. Full instructions will be provided during the project shaping and contract negotiations phase;
- (c) Financial due diligence on the breakdown of costs for the Project to enable the ETI to assess value for money and ensure that it meets state aid requirements;
- (d) Copies of insurance policies; and
- (e) Any other information that the ETI reasonably requires in order to fund the proposed Project including any additional information necessary to meet state aid requirements.

Table 1 – General Due Diligence Information

| |
|---|
| 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. |
| <ul style="list-style-type: none"> • Property damage • Business interruption • Employer's liability • Public liability • Product liability (or justify its exclusion if not appropriate) • Professional Indemnity |

Appendix D Statement of Compliance

The Respondents shall provide a statement that the Proposal is fully compliant with the Request for Proposals, or shall state clearly any exceptions, deviations, alternative approaches or additions, 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 Request for Proposals 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.

In relation to the Project Contract, the Statement of Compliance should set out at a minimum in relation to those aspects as detailed in Section 1.6.2 of this Request for Proposal, (a) the acceptance by each Respondent of the terms and conditions of the Project Contract and (b) any exceptions to the terms and conditions of the Project Contract issued by the ETI. The exceptions set out will both be considered as part of the selection process to determine whether there is material compliance of the terms and conditions and as the basis of negotiations with the successful Respondent in the initial negotiation and after selection to enter into contract negotiations.

Appendix E Non Disclosure Agreement

The non disclosure agreement (NDA) protects the confidential information of the Respondents and the ETI during the period of the bid response and during contract negotiations. For the successful Respondents, the confidentiality provisions in the Project Contract will supersede this NDA. These will be negotiated between the Respondents and the ETI.

The ETI will not enter into negotiations on the terms of this NDA during the bidding process.

NDA execution process

At the conclusion of the NDA execution process, the ETI and each Party to the NDA should possess an original signed copy of the NDA, i.e. not only a scanned copy. To achieve this in a timely manner, the following process should be undertaken:

In the case of a Prime Contractor led proposal:

- The Prime Contractor should complete and sign two paper copies of the NDA, but NOT date them.
- The Prime Contractor should post both original signed and undated copies to the ETI.
- The ETI will sign and date the two original copies of the NDA. The ETI will retain one of these copies and post the other to the Prime Contractor.

In the case of a Consortium bid, led by a Lead Coordinator:

- Schedule 1 of the NDA must be populated with the names and legal entities of the Lead Coordinator and each Consortium member to ensure that the executed NDA is between all relevant parties.
- For a Consortium consisting of n members, the Lead Coordinator should organise $n+1$ copies of the NDA are produced, each with a completed Schedule 1 and each with an original signature from each Consortium member. These copies should NOT be dated.
- The Lead Coordinator should post all (i.e. $n+1$) original signed and undated copies to the ETI.
- The ETI will sign and date all of the original copies of the NDA. The ETI will retain one of these copies and post the remainder (i.e. n copies) to the Lead Coordinator, who should then pass one to each Consortium member.
- If the Lead Coordinator wishes to introduce an additional Consortium member at a later date, it will be necessary to repeat the NDA execution process with all members.

A separate version of this NDA is available on the ETI website.



MULTI-PARTY CONFIDENTIALITY AGREEMENT

THIS AGREEMENT is made on _____ of _____ 2011

BETWEEN:

- (1) **ENERGY TECHNOLOGIES INSTITUTE LLP**, a limited liability partnership (company no. OC333553) whose registered office is at Holywell Building, Holywell Way, Loughborough, Leicestershire, LE11 3UZ (the "**ETI**"); and
- (2) **The parties named in Schedule 1 of this Agreement** (the "**Respondents**"),

(collectively the "**Parties**" and individually a "**Party**")

BACKGROUND:

The Parties intend to exchange certain Information on or after the Effective Date for the Purpose. The Parties agree to receive such Information, which shall be treated as confidential information, for the Purpose on the following terms and conditions.

IT IS AGREED:

In consideration of the above and for other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound, the Parties agree as follows:

- 1 In this Agreement, unless the context requires otherwise, the following words shall have the following meanings:

"Clarification Meetings" means the meetings to be held with the ETI prior to contract award;

"Disclosing Party" means any Party that discloses Information pursuant to this Agreement;

"Effective Date" means the date of this Agreement;

"ETI Affiliates" means the Secretary of State for Business, Innovation and Skills (and any successor governmental department or agency from time to time) and any other entity which is entitled to appoint the directors or otherwise having the ability to direct management policies of the ETI (together with any affiliates of those entities), together with their respective officers, employees, agents and consultants;

"Information" means any and all confidential information or data submitted in respect of or further to the Purpose or prepared in relation to the Purpose, including but not limited to written proposal documentation, due diligence materials, contractual documentation, reports, and the fact that the Parties have entered into this Agreement and are discussing and considering a business relationship;

Strictly Private and Confidential

“Procurement” means the procurement by the ETI of the Project including any stages set out in the RFP or as later may be notified or published by the ETI;

“Project” means the proposed research and development project, to be funded (in part or in whole) by the ETI for the Wave Energy Converter (WEC) System Demonstrator Project;

“Purpose” means:

- a the preparation of documents and the making of any proposal in response to the RFP;
- b any activities related to the assessment of a Respondent’s proposal or proposals for the Project including, but not limited to, any technology, commercial offer, financial information, management systems and intellectual property; and
- c any related exchanges of Information, clarifications, discussions, meetings, or negotiations in respect of the RFP, the Procurement and the Project (including such exchanges made at any Clarification Meetings);

“Receiving Party” means any Party that receives Information pursuant to this Agreement;

“Respondent Affiliate” means any undertaking that is:

- a a holding company of such Respondent;
- b the ultimate holding company of the group to which such Respondent belongs; or
- c a subsidiary of any holding company or subsidiary of the group to which such Respondent belongs,

and for the purposes of this definition, the terms above are as defined in section 1159 of the Companies Act 2006;

“RFP” means the request for proposals relating to the Project, issued by the ETI on 28th September, 2011; and

“Stage 2” means the second stage of the Procurement following the ETI’s initial selection of any proposals received in response to the RFP and as described in the RFP and further notified or published by the ETI.

- 2 The Receiving Party shall with regard to any Information disclosed pursuant to this Agreement by or on behalf of a Disclosing Party on or after the Effective Date:
 - a hold the Information in confidence and except as is otherwise stated herein or agreed in writing by the Disclosing Party, shall not disclose or make available the Information by publication or otherwise to any third party (including for the avoidance of doubt, disclosure in any patent application or to any patent office) and shall use any Information disclosed to it pursuant to this Agreement only for carrying out the Purpose;
 - b make copies of the Information (or any further information derived from the Information) in whatever form or medium only to the extent that the copies are reasonably necessary for the Purpose and clearly mark all such copies as confidential;
 - c take all necessary and proper security precautions (and at least as great as those it takes to safeguard its own information) to safeguard every part of the Information to prevent it from being disclosed or otherwise made available to any third party except as permitted by this Agreement; and

- d at the request and direction of the Disclosing Party, and without delay, return or destroy any Information provided to it pursuant to this Agreement and any copies of such Information, except that one copy may be kept by the Receiving Party for archival purposes and for the purpose of defending itself against any claims arising in connection with this Agreement.
- 3 The obligations set out in clause 2 shall not apply to Information that:
- a the Receiving Party can prove (using written or electronic records), was lawfully known to the Receiving Party or in its possession prior to its communication by or at the direction of the Disclosing Party and was not communicated to the Receiving Party subject to any restrictions on disclosure or use; or
 - b is or becomes a part of the public domain through no wrongful act of the Receiving Party or any person on its behalf, provided that this clause 3(b) shall only apply from the date that the relevant Information so enters the public domain; or
 - c the Receiving Party receives from a third party without similar obligations of confidence in circumstances where the third party did not obtain that Information as a result of a breach of an obligation of confidence; or
 - d is required to be disclosed or made available by the Receiving Party pursuant to any applicable law, governmental regulation, or decision of any court or tribunal of competent jurisdiction or any government body, agency or regulatory body.
- 4 If a Receiving Party believes it is required by law to disclose any Information under clause 3(d) above, the Receiving Party shall (in each case and to the extent not prohibited in law):
- a provide the Disclosing Party with prompt written notice of such requirement or obligation, (together with a copy of any relevant access request, court order or other evidence giving rise to such belief) to enable the Disclosing Party to seek appropriate protective relief and/or to take other steps to resist or narrow the scope of any required disclosure;
 - b where it is not permitted in law to notify the requirement for disclosure in advance of the required disclosure, notify the Disclosing Party as soon as reasonably practicable after the disclosure confirming the nature of and extent of the disclosure; and
 - c co-operate with the Disclosing Party with respect to such matters,
- and in any event disclose only such Information as it has ascertained, after taking advice, it is legally compelled to disclose.
- 5 ETI shall be entitled to disclose or make available any Information it receives from the Respondents to such of the ETI Affiliates, and either the ETI's or the ETI Affiliates' employees, officers, secondees, agents, consultants, Sub-contractors, proposed Sub-contractors, professional advisers and proposed professional advisers where such disclosure is necessary for the Purpose, provided that in the case of disclosure of Information to ETI Affiliates, that this is limited to disclosure as is reasonably necessary for the purpose of ETI's governance of the Procurement and the Project.
- 6 ETI shall be entitled to disclose or make available any Information it receives from the Respondents to the Department of Business, Innovation and Skills (or other relevant Government department) and to the European Commission and their advisers as is necessary to seek advice in relation to the application of state aid, to notify or as part of any detailed assessment of state aid in the Project.
- 7 ETI shall ensure that all such persons to whom any Information under clause 5 of this Agreement is disclosed are bound by obligations of confidentiality and ETI shall be responsible for breaches of the obligations by such persons.

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- 8 ETI shall be entitled to disclose or make available any Information it receives from a Respondent to any other Respondent where it is necessary for the Purpose.
- 9 Each Respondent shall be entitled to disclose or make available any Information it receives from the ETI or any other Respondent to such of its employees, officers, consultants, Sub-contractors, proposed Sub-contractors and professional advisers where such disclosure is necessary for the Purpose provided that all such persons to whom any Information is disclosed are bound by obligations that are no less restrictive than those in this Agreement. The Respondent disclosing Information shall be responsible for breaches of the obligations by such persons.
- 10 Each Respondent shall be entitled to disclose or make available any Information it receives from the ETI to any other Respondent where it is necessary for the Purpose.
- 11 The Receiving Party expressly agrees and accepts that except in the case of fraud, no representation or warranty, express or implied, is made by the Disclosing Party as to the accuracy, completeness, reasonableness or otherwise in respect of the use of the Information, and that neither the Disclosing Party or any of its affiliates nor any of its or their respective employees, officers, secondees, agents, consultants, Sub-contractors and professional advisers (as applicable) shall have any liability to the Receiving Party as a result of the Receiving Party's possession or use of the Information.
- 12 The Parties agree that money damages would not be a sufficient remedy for any breach of this Agreement and that the Disclosing Party shall be entitled to specific performance and injunctive or other equitable relief as a remedy for any such breach. Such remedy shall not be deemed to be the exclusive remedy for breach of this Agreement, but shall be in addition to all other remedies available at law or equity.
- 13 No rights or obligations other than those expressly set out in this Agreement are to be implied and nothing contained in this Agreement:
 - a constitutes an offer by or on behalf of the Disclosing Party; or
 - b confers upon the Receiving Party a licence or other transfer of rights in respect of any Party's interest in any Information or in any present or future patent or patent application; or
 - c affects the present or prospective rights of the Disclosing Party under the patent laws of any country or precludes the filing or prosecution of any patent applications by the Disclosing Party.
- 14 This Agreement represents the entire agreement between the Parties in relation to the subject matter contained herein and supersedes all other agreements and representations, whether oral or written. This Agreement may only be modified if such modification is in writing and signed by a duly authorised representative of each Party.
- 15 Neither Party will make any public announcements, statements or otherwise publicise the subject matter of this Agreement (or its existence) without the prior written consent of the other Party and neither Party will use the business names or trade marks of the other Party in any way without that Party's prior written consent.
- 16 This Agreement shall come into force on the Effective Date and shall continue in full force and effect, notwithstanding the completion of the Purpose, for a period of seven years from the Effective Date unless extended or superseded by a subsequent written agreement.
- 17 It is not intended that a third party (other than an ETI Affiliate) should have the right to enforce a provision of this Agreement pursuant to Contracts (Rights of Third Parties) Act 1999.
- 18 The rights of the Disclosing Party under this Agreement are in addition to and not exclusive of rights under the general law and may be waived only in writing and specifically. Delay in exercising or non-exercise of any right under this Agreement is not a waiver of that or any other right, partial exercise of any right under this Agreement shall not preclude any further or other exercise of that right or any other right under this Agreement and waiver of a breach of any term of this Agreement shall not operate as a waiver of breach of any other term or any subsequent breach of that term.

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- 19 If any provision of this Agreement is or become illegal, invalid or unenforceable in any jurisdiction, that shall not affect:
 - a the legality, validity or enforceability in that jurisdiction of any other provision of this Agreement; or
 - b the legality, validity or enforceability in any other jurisdiction of that or any other provision of this Agreement.

- 20 Nothing in this Agreement is intended to or shall operate to create a partnership or joint venture of any kind between the Parties, or to authorise either Party to act as agent for the other, and neither Party shall have authority to act in the name or on behalf of or otherwise to bind the other in any way.

- 21 Except as provided otherwise, no person may assign any of its rights under this Agreement or any document referred to in it.

- 22 This Agreement may be executed in any number of counterparts, each of which when executed and delivered shall constitute an original of this Agreement, but all the counterparts shall together constitute the same agreement. No counterpart shall be effective until each Party has executed at least one counterpart.

- 23 This Agreement shall be construed in accordance with and governed by English law and the Parties hereby submit to the non-exclusive jurisdiction of the English Courts.

The Parties have caused this Agreement to be executed by their duly authorised representatives.

ENERGY TECHNOLOGIES INSTITUTE LLP

By: _____

Name: _____

Title: _____

Date: _____

SCHEDULE 1

| Respondents | Signature |
|---|---|
| <p><i>[Insert name of Company]</i> (company no. <i>[Insert Company number]</i>) <i>[Insert address of Company]</i></p> | <p>By: _____ Name: _____ Title: _____</p> |
| <p><i>[Insert name of Company]</i> (company no. <i>[Insert Company number]</i>) <i>[Insert address of Company]</i></p> | <p>By: _____ Name: _____ Title: _____</p> |
| <p><i>[Insert name of Company]</i> (company no. <i>[Insert Company number]</i>) <i>[Insert address of Company]</i></p> | <p>By: _____ Name: _____ Title: _____</p> |
| <p><i>[Insert name of Company]</i> (company no. <i>[Insert Company number]</i>) <i>[Insert address of Company]</i></p> | <p>By: _____ Name: _____ Title: _____</p> |
| <p><i>[Insert name of Company]</i> (company no. <i>[Insert Company number]</i>) <i>[Insert address of Company]</i></p> | <p>By: _____ Name: _____ Title: _____</p> |

Appendix F Glossary

| Term | Definition |
|----------------------|--|
| Arising IP | Any intellectual property which is created by or for any Participant during the Project or for the purposes of the Project. |
| Background IP | Any intellectual property which existed prior to any Participant's commencement of the Project and which was created by or for the Participant. |
| CDM | Construction (Design and Management) Regulations 2007. |
| Chief Technologist | The individual who is appointed by the Lead Coordinator or Prime Contractor, or is otherwise agreed by the Project Participants, to be responsible for the technical delivery of the Project. |
| Client | As defined by CDM. |
| Consortium | The group of organisations described in Section 1.8, 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 or any Sub-contractors. |
| Consortium Member | An organisation which forms part of the Consortium. |
| Consortium Agreement | The agreement to be entered into between the organisations together forming a Consortium, as described in Section 1.8, which governs the execution of the Project within the Consortium. |
| ETI | The Energy Technologies Institute LLP, a limited liability partnership (Company no. OC333553) whose registered office is at Holywell Building, Holywell Way, Loughborough, Leicestershire LE11 3UZ. |
| Lead Coordinator | The organisation which is a Consortium Member, 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 1.8. |
| Members | The member organisations of the ETI as indicated on the ETI's website at www.energytechnologies.co.uk . |
| Participant | Either the Prime Contractor or a Consortium Member. |
| 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 3.3 and on the Terms in Appendix B. |
| Prime Contractor | A sole organisation which contracts with the ETI to manage the project. It may have Sub-contractors. |
| 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 between the Consortium Members or a Prime Contractor). |
| Project Governance | The planned meetings for the management of the project as described in section 1.9 |
| 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 |

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| | structure which they adopt, as described in Section 1.8 1.7, which together will carry out the Project if commissioned by the ETI and includes any Consortium Members or Prime Contractor and any Sub-contractors. |
| Proposal | The proposal for the Project submitted to the ETI, as described in Section 3.2, in response to this Request for Proposals. |
| Respondent | The organisations submitting a Proposal to the ETI, as described in Section 1.8. |
| Stage Gate | A major Project review point involving Project Participants and ETI representatives at which the overall performance and business case for the Project will be critically reviewed and following which a formal decision will be made whether to continue with the Project, based on whether agreed Stage Gate Criteria have been met. |
| Sub-contract | A contractual arrangement between a Participant (described in Section 8) and another organisation to which work for the Project has been sub-contracted. |
| Sub-contractor | An organisation which has a Sub-contract. |
| Submission | The components set out in Appendix A, including the Respondent's Proposal submitted by the Respondent in response to this Request for Proposals. |
| 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. |
| Value Proposition | The proposition from the Respondent for the value that the ETI and its Members will derive from the Project as set out in section 1.5 |
| Work Package (WP) | A major section of the Project scope of work, which may be identified in this Request for Proposals 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. |