10 February 2025

Dear Sir/Madam,

Invitation to Tender for the Floater and Tower Designs for Larger WTG's project for the Floating Wind Joint Industry Programme

You are invited to submit a proposal for the Floater and Tower Designs for Larger WTG's project which is part of the Floating Wind Joint Industry Programme. The key objective of this project is to understand the influence of global system frequencies on the design and the configuration of WTG towers and floating platforms.

Please be aware that this process is a non-mandatory procurement process, published for transparency and best practice. All timescales are based, as near as possible, to the Open Procedure. However, dates referred to below may be subject to change where this is necessary in the interests of the project (such changes will be notified in advance).

Should your proposal be successful an Award Letter, the Scope of Work, the Carbon Trust Conditions of Contract ("**Conditions**"), and any clarifications agreed in writing, will establish the Contract for the Floater and Tower Designs for Larger WTG's project (the "**Contract**") between you and the Carbon Trust. The Conditions accompany this ITT for your prior review. Please note that in the interests of transparency and fairness, these Conditions are non-negotiable, although we will provide clarifications to any queries you may have prior to submitting your Tender, answers to which will be distributed to all bidders as set out below. Bids that fail to accept the Conditions in their full un-amended form (other than changes explicitly accepted and agreed by the Carbon Trust on the clarifications page) at the time of submission will be considered to be non-compliant and may, at the Carbon Trust's discretion, be excluded from the procurement process.

Clarification questions must be emailed to alistair.morris@carbontrust.com and FloatingWind@carbontrust.com any time before 24 February 2025. Answers to clarification questions will be communicated by email by 28 February 2025. Answers can be found at: https://www.carbontrust.com/about-us/tenders.

Unless informed to the contrary, Tenders and communications should be sent by e-mail to the following e-mail address: alistair.morris@carbontrust.com and FloatingWind@carbontrust.com.

Please submit your proposal by 17:00 GMT 31 March 2025.

The timeline of this procurement process is as follows:

Deadline for clarification questions	24 February 2025
Clarification response date	28 February 2025
Submission of full proposal	17:00 GMT 31 March 2025
Bidder interviews	Week commencing 5 May 2025
Project kick off	June 2025

If you have any questions about the timing, please let us know.

We look forward to receiving your Tender.

Yours sincerely,

Alistair Morris
For and on behalf of
THE CARBON TRUST

IMPORTANT INFORMATION FOR BIDDERS

Publishing

Neither this document, nor any part of it nor any other information supplied in connection with it may, except with the prior written consent of the Carbon Trust, be published, reproduced, copied, distributed or disclosed to any person for any purpose other than consideration by the recipient of whether or not to submit a Tender.

Tender evaluation

The received tenders will be evaluated by the Carbon Trust and the Floating Wind JIP Partners against the criteria provided in section 7 and the Bidder authorises the Carbon Trust to share its submitted Tender with the Floating Wind JIP Partners for this purpose. A shortlist of Bidders will be created and invited for interview. Carbon Trust will do a vetting of the shortlisted bidders. Carbon Trust may request shortlisted bidders to fill-in a Due Diligence Questionnaire to supply additional information prior to being invited for an interview.

Contracting

Bidders should note that the Scope of Work described in this Invitation to Tender (ITT) does not constitute an offer to contract with the Carbon Trust. It only represents a definition of specific requirements and an invitation to submit a Tender proposal addressing these requirements.

Issuance of this ITT and the subsequent receipt and evaluation of the Tenders by the Carbon Trust does not commit the Carbon Trust to enter into a Contract with any Bidder.

Should Your Tender be successful, a Final Scope of Work that builds upon the Scope of Work contained in section 4 of this document and Your Approach to Work will be mutually agreed between You and the Carbon Trust. Once the Final Scope of Work is agreed, Your offer will be formally accepted by the Carbon Trust issuing an Award Letter, the Final Scope of Work, the Floating Wind JIP Stage III Contractors' Conditions, and any clarifications agreed in writing. The Award Letter, the Final Scope of Work, the Floating Wind JIP Stage III Contractors' Conditions, and any clarifications agreed in writing will establish the Contract for the Floater and Tower Designs for Larger WTG's project (the "**Contract**") between You and the Carbon Trust. With the exception of any minor amendments to the Floating Wind JIP Stage III Contractors' Conditions which may be requested by the Bidder, the submission of a Tender shall constitute unqualified acceptance of the Floating Wind JIP Stage III Contractors' Conditions. In the event that minor amendments to the Floating Wind JIP Stage III Contractors' Conditions are requested, such amendments must be clearly stated and the exact alternative wording must be provided in Annex A of the Tender Certificate. Please note that it is at the sole discretion of the Carbon Trust to accept any of the proposed amendments and that the Carbon Trust reserves the right to require the provision of further information in relation to any such request. No minor changes other than those contained in Annex A of the Tender Certificate at the time of submitting the Tender will be considered. No material changes will be considered at any time.

Mechanics of the Tender process

Bidders should also note that:

- it is at the discretion of the Carbon Trust whether to accept any non-compliant Tender or whether to reject any non-compliant tenders without progressing such tenders through the evaluation phase;

- the Carbon Trust reserves the right not to accept the lowest priced Tender or any Tender whatsoever;
- the Carbon Trust reserves the right to accept more than one Tender;
- unless a Bidder makes a formal statement to the contrary, the Carbon Trust reserves the right to accept any part of a Bidder's Tender without accepting the remainder;
- formal notification that a Tender has been successful will be communicated in writing by the Carbon Trust;
- the costs of tendering are the full responsibility of the Bidder; and,
- the pricing set by Bidders shall be valid for a minimum of 90 days.

Bids may be submitted by individuals, companies, organisations or consortia.

Bidders should be aware that dates referred to in this Invitation to Tender may be subject to change where this is necessary in the interests of the Project (such changes will be notified in advance).

The Tender Certificate, Main Bid Document and any correspondence must be written in English. This Invitation to Tender, the Contract, its formation, interpretation and performance is subject to and in accordance with the law of England and Wales.

Conflicts of interest

Bidders should be free of any commercial interests, partnership arrangements or contracts underway or other matters which may present a conflict or potential conflict of interest in respect of the provision of these services. As set out in section 3, if a Bidder thinks that it may have any conflict or potential conflict of interest, the Bidder shall describe the details of this conflict and provide details of whether and how it would propose to manage such a conflict in a satisfactory and robust manner in Annex B of the Tender Certificate. The Carbon Trust reserves the right to require the provision of further information in relation to any conflict or potential conflict of interest.

Disclaimer

The information contained in this Description of Tender document and in any documents or information it refers to or incorporates (the "**Disclosed Information**") has been prepared to assist interested parties in deciding whether to submit a Tender. The Disclosed Information is not a recommendation by the Carbon Trust. It does not purport to be all inclusive or include all the information that a Bidder may require.

Neither the Carbon Trust nor any of its directors, employees, agents or advisers makes any representation or warranty (express or implied) as to the accuracy, reasonableness or completeness of the Disclosed Information. All such persons or entities expressly disclaim any and all liability (other than in respect of fraudulent misrepresentation) based on or relating to the Disclosed Information or any subsequent communication. The Bidder should conduct its own due diligence and seek its own professional, legal, financial and other advice as appropriate. The only information which will have any legal effect and/or upon which any person may rely will be such information (if any) as has been specifically and expressly represented and/or warranted in writing to the successful Bidder in any written contract that may be entered into with the Carbon Trust.

Floating Wind Joint Industry Programme

Invitation to Tender for the "Floater and Tower Designs for Larger WTG's (FTDL)" Project

Description of Tender

Contents

1. Introduction to the Floating Wind Joint Industry Programme

1.1. The Floating Wind Joint Industry Programme ("**Floating Wind JIP**") is a collaborative R&D initiative between the Carbon Trust and participating industry partners bp, EDF Renouvelables, EnBW, Equinor, Kyuden Mirai Energy, Ocean Winds, Parkwind, RWE Offshore Wind, ScottishPower Renewables, Shell, Skyborn Renewables, SSE Renewables, TEPCO, Tohoku EPCO, TotalEnergies and Vattenfall (the latter are collectively referred to in this document as "**Floating Wind JIP Partners**"), that aims to investigate the challenge and opportunities of developing commercial-scale floating wind farms.

1.2. The objective of the Floating Wind JIP is to overcome technological challenges and advance commercialisation of floating offshore wind.

1.3. Contractors receive technical direction and data from Floating Wind JIP Partners through the Carbon Trust management team.

1.4. Please note, the term "Contractor", where used within this document, refers only to successful bidders.

2. Background and objective of the FTDL project

2.1. The Floating Wind JIP Partners would like to investigate the influence of global system frequencies on the design and the configuration of WTG towers and floating platforms.

2.2. Floating offshore wind brings several key design challenges, one of the most notable being the difficulty in the design process around global system frequencies. Since floating wind turbines are highly sensitive to dynamic loads, their structural response is characterised by the natural frequencies and a main objective of the design is to ensure that these natural frequencies are appropriately far apart from the excitation frequencies of environmental and operational loads.

The industry has developed multiple demonstration projects in the 2-10MW range during which it has been found that the 2nd global mode (combined 1st mode for tower bending) is usually in the proximity of the blade passing frequency (3P) which has the potential to cause significant oscillation and therefore high fatigue loading. For a design to be robust and limit the impact on fatigue loading an appropriate margin needs to be maintained between these frequencies which has often proved to be challenging. As the offshore wind industry is moving towards larger turbines that will be 15MW and upwards, this challenge becomes of greater significance as the tower makes up a greater proportion of the overall system weight and leads to higher structural stiffness.

To date in the 6-10MW range floating turbines have used a mixture of soft-stiff (notably semi-submersibles) and stiff-stiff (notably spars) system design and as we move to increased turbine sizes several physical parameters will interact to move the system frequencies relative to each other. In recent years the overwhelming direction has been to try and achieve a stiff-stiff tower design, as this is often the easier direction to move, but comes at the cost of potentially significant increased weight in the tower with loads and stability challenges being compounded by the weight increase.

The industry has a lack of understanding of the full design space with respect to turbine size and weight, foundation conceptual layout and environmental conditions and the impact these have on the potential for achieving either a soft-stiff or and stiff-stiff design solution. With the assessment that soft-stiff towers could lead to reduced weight and a proportional reduction in interface loads there is potentially a distinct cost advantage in achieving soft-stiff designs where possible.

2.3. The main objectives of this work are to:

- Set out the challenge of system frequencies in the design of floating offshore wind turbines
- Understand and establish what the key design parameters that impact on the relative proximity of system frequencies. Parameters including:

WTG Size:	i.e. 15MW / 20MW / 25MW
WTG Architecture:	i.e. Direct Drive / Geared (impact on nacelle mass)
Hub Height / Air Gap:	i.e. air gap 20m, 30m
Tower Interface Diameter:	i.e. 7.5m, 8m, 9m
Tower Diameter Profile:	i.e. height of conical section
Tower Bottom diameter	i.e. up to 10m
Foundation Archetype:	i.e. semi-submersible, barge, spar
WTG Location:	i.e. central, asymmetric
Foundation Material:	i.e. steel, concrete
Foundation Static Pitch Angle:	i.e. 3 degrees, 5 degrees
Semi-Submersible Column No.:	i.e. 3 columns, 4 columns
Semi-Submersible Column Diameter:	i.e. Not specified
Semi-Submersible Column Separation:	i.e. Not specified
Semi-Submersible Connections:	i.e. Pontoon, Truss
Design Climate:	i.e. North Sea, Mediterranean
Implication of Active Ballast System	i.e. lower hydrostatic stiffness
Interface elevation	i.e. Not specified
Draught	i.e. Not specified
Effect of heave plates	i.e. Not specified
Frequency avoidance band	i.e. 10, 15, 20, c25%
Mooring system type	i.e. taut vs semi-taut
Static pitch angles	i.e. up to 6 degrees

- Investigate the impact of composite section or otherwise flexible coupling between tower and foundation.
- Investigate the modelling of tower damping systems and their integration in the design tools.

- Investigate how the parameters identified interact and establish a design space for soft-stiff and stiff-stiff, highlighting combinations that will challenge 3P separation requirements.
- Understand and establish the key design drivers for floating foundations depending on WTG size and properties.
- Develop recommendations on best designs and practices as well as a scaled floater configurations for multiple WTG sizes, including considerations on key design drivers and features (e.g. WTG position).
- Evaluate the impact that design choices may have on the cost outcomes of a project

3. Tender documents for submission

3.1. In response to this Invitation to Tender, Bidders are required to submit

i. A Main Bid Document (pdf) – no template provided;
ii. The signed Tender Certificate (pdf) – template provided; and
iii. The filled-in Bid Price Calculation Sheet (xls) – template provided.

3.2. The Main Bid Document should be no more than 20 pages excluding appendices and no more than 40 pages including appendices. Font should be clearly legible, and be at least font size 11. The Main Bid Document shall as a minimum include the following information:

i. The Bidder's proposed detailed Approach to Work (see section 4 and criterion 1 for more details). The Approach to Work should:

- include a Gantt chart which describes the timeline for the Project, showing when each Work Package will start and finish;
- outline how the Bidder will deliver the Scope of Work and do so on budget and within the allocated time;
- specify any input data, background IP, hardware or other inputs that the Bidder requires the Carbon Trust and/or the Floating Wind JIP Partners to provide;
- specify any Alternative Work (i.e. substitute activities to take place instead of certain activities outlined in the Scope of Work in section 4). If Alternative Work forms part of the Approach to Work, the Bidder is expected to highlight, explain and justify the intended deviation from the Scope of Work. Alternative Work will be considered as non-optional when the Tender is evaluated; and
- specify any Additional Work (i.e. activities to take place in addition to the activities outlined in the Scope of Work in section 4). If Additional Work forms part of the Approach to Work, the Bidder is expected to explain and justify why the Additional Work would be beneficial and to provide a separate quotation for these activities. It is at the discretion of the Carbon Trust to consider Additional Work in the evaluation of the Tender.

ii. a pdf copy of the filled-in Bid Price Calculation Sheet;
iii. the offered Bid Price, including any cost assumptions deemed relevant by the Bidder – see section 6 and criterion 4 for more details;
iv. an explanation of experience and staff skills, and how these are relevant to the Approach to Work – see criteria 2 and 3 for more details; and

v. supplementary information to provide experience evidence and skills evidence (e.g. CVs) – see criteria 2 and 3 for more details. This information should be provided as appendices to the Main Bid Document.

3.3. The Tender Certificate must be signed by an authorised signatory. Bidders must fill in the provided template.

3.4. The filled-in Bid Price Calculation Sheet must be provided in Excel format in addition to the information provided in the Main Bid Document. See section 6 and criterion 4 for more details.

3.5. The failure by a bidder to submit either the Main Bid Document, the signed Tender Certificate or the filled-in Bid Price Calculation Sheet shall mean that such Tender is a non-compliant Tender.

4. Scope of Work

4.1. The Scope of Work is provided in this section 4.

4.2. The Scope of Work comprises 5 Work Packages. The Scope of Work sets out the initial ideas on the key activities that the Contractor is expected to deliver for the Project.

4.3. It is expected that the Contractor will report on Project Deliverables to the Floating Wind JIP Partners. The Carbon Trust and the Floating Wind JIP Partners shall review and provide feedback on each Project Deliverable. There will be at least one round of review comments to be accommodated by the Contractor for each Project Deliverable.

4.4. The Final Scope of Work will be agreed between the Carbon Trust and the Contractor when entering into the Contract. The Final Scope of Work may reflect any updates, changes or improvements to the Scope of Work as proposed by the Contractor in its Alternative Work or Additional Work and as agreed by the Carbon Trust.

4.5. Due to the breadth of skills and experience required for the Project bidders may decide to build a consortium to successfully meet the objectives of the Project. If a Tender is submitted by a consortium it is expected that, in the case that the consortium is selected as the preferred Bidder, Carbon Trust will only enter into a Contract with the Project Coordinator, and that the Project Coordinator will subcontract the other members of the consortium.

4.6. The Carbon Trust appreciates that it will take a small team of mixed seniority approximately 15-18 months to complete the Project.

4.7. Bidders should use the Scope of Work as set out below to create the Approach to Work. Any Alternative Work or Additional Work shall be stated in the Approach to Work at the end of the relevant Work Package description.

4.8. It is expected that simplifying assumptions will be required to complete the work in the given timeframe. These assumptions should, to the extent possible at the time of Tender submission, be clearly stated in the Approach to Work. It is expected that during the execution of the FTDL project, any assumptions will be discussed with the Floating Wind JIP Partners prior to the start of each Work Package.

WORK PACKAGES

Work Package	Description of work
WP1: WP1: Literature Review and Fundamental Physical Assessment	• Undertake a review of past literature on the topic of floating offshore wind turbine system frequencies (including relevant past FLWJIP reports) • As part of the literature review engage with the wider industry to determine learnings on how eigenfrequencies of real-world assets compared with design. • Set out the fundamental physical attributes of the system that contribute to both the global system frequency and the blade passing frequency • Research existing methodologies and approaches to estimate the modal frequencies of floating wind systems. • Discuss the likely variation in load level with variation in the proximity of these frequencies • Undertake a sensitivity analysis of the floater eigenfrequencies between an equivalent beam model and a full Finite Element (FE) model, with specific focus upon stiffened panel floater designs. • Engage with relevant industry organisations including turbine OEMs and foundation designers to establish industry experience and expectation in this area.
Project Deliverables: - **D01.1: Report summarising the challenge of floating system frequencies and existing literature and industry experience** - **D01.2: Presentation to the Floating Wind JIP partners.**	
WP2: Frequencies assessment and design methodology	• Review appropriate methods for assessment of system frequencies, structural loads and structural design, highlight appropriate design practices / standards • Propose a suitable design basis for the analysis, including water depth, met-ocean conditions, seabed conditions, and other relevant parameters. • Using output from the WP1 develop a methodology for exploring the design space. This should be presented, discussed and agreed with the FLWJIP partners. Part of this methodology should include: ○ Description of analysis approaches, including estimation of load levels, system frequencies and tower design methodology. It is expected that this will require a combination of analysis tools such as Finite Element Analysis, turbine load modelling and design code assessment and that approximations, simplifications or automation may be required to achieve assessment across a large range of parameters. ○ A full list of proposed variables for assessment

	○ A proposal for how the results will be used to visualise the outcomes If required the Floating Wind JIP 15MW reference turbine files will be shared to support with delivery. It should be assumed that no further modelling files or data sets will be shared.
Project Deliverables: - **D02.1: Report detailing the frequency assessment and design methodology developed.** - **D02.2: Presentation to the Floating Wind JIP partners.**	
WP3: WP3: Modelling and simulation of alternative system frequency response	• Using the concepts and approaches defined in WP2, undertake modelling of the range of turbine / floater configurations using a suitable modelling package(s), as proposed by the contractor, to estimate tower load levels in both extreme and fatigue. • Develop a suitable tower design / scaling for each of the analyses undertaken. • Assess the global system frequencies with respect to possible resonant interactions, ensuring that the floater structural flexibility and stiffness is included using input obtained from the sensitivity analysis in WP1. • Reassess potential load impact and confirm tower design suitability. • Based upon the modelling and simulation analysis develop a visualisation to show the trends across the full design space. It should be noted that it is expected that modelling approaches undertaken are not at the level of detailed engineering design, but the proposed approach(es) should produce sufficiently robust designs / trends to enable the study objectives to be met. The analysis approach may take benefit from the use of sensitivity studies or other means to approximate loads results at multiple points with reference to a smaller number of baseline loads runs. Proposals are expected to include a preliminary parameter list for investigation to understand the scope of the study being proposed. The parameter list may ultimately be modified after delivery of WP1 and WP2.
Project Deliverables: - **D03.1: Report detailing the assessment of the system frequency response and the associated outcomes.** - **D03.2: Presentation to the Floating Wind JIP partners.**	
WP4: Floater Design and Scaling with WTG	• Based on the results from WP3, select three to four alternative floater configurations for further analysis, ideally covering different archetypes (e.g. semi-submersibles and barges), geometries (WTG position) and properties (steel or concrete).

	• Characterise the response and of the selected floaters for different WTG sizes from WP3 results and review the associated tower designs. • Review additional design requirements (other than those associated with the frequency separation) related to stability and dynamics (mean tilt angle, nacelle accelerations). • Analyse the stability and dynamic response of the selected floaters and validate their feasibility against the requirements, providing indications for design adjustments and modifications, where required. • Carry out a fully coupled simulation and analysis of the selected floaters, considering selected load cases and reviewing fatigue implications, to confirm the findings from the frequency assessment in WP2 and WP3. • Compare responses between floaters and explore trends associated with different WTG sizes and characteristics.
Project Deliverables: - **D04.1: Report detailing the design and detailed analysis of floaters for WTG scaling.** - **D04.2: Presentation to the Floating Wind JIP partners.**	
WP5: Reporting of outcomes and implication for project design decisions	• Based upon the outcome of modelling undertaken in WP3 produce a summary detailing the outcomes and conclusions of the analysis of the selected designs across the full parameter range agreed. • Produce an estimate of the cost variation of the system across the parameter ranges assessed, including the impact of any increased interface loading on the foundation design. • Develop a guidance document for assessing the implications of system frequency within a project including when it should be considered and the level of detail required to make an appropriate assessment. • As part of the guidance document outline and provide a recommendation of adequate margin to account for modelling uncertainties.
Project Deliverables: - **D05.1: Report outlining development guidelines summary and best practice guidelines.** - **D05.2: Presentation to the Floating Wind JIP partners.**	
WPA. Project Management	The Bidder should stipulate how it will manage the Project efficiently and effectively. In particular, the following activities should be included (and hence budgeted for) • project management time (including sufficient time for review processes); • regular update calls with the Carbon Trust Project Manager and/or Floating Wind JIP Parties as required;

	• the preparation of monthly flash reports (Carbon Trust template) containing key financial data and information of the delivery status of the Project; and
	• towards the end of the Project
	  ○ the production of a 3-10 pages Executive Summary Report for the entire Project (for dissemination within the Floating Wind JIP);
	  ○ the preparation of a Project Closeout Form (Carbon Trust template) which includes a short summary of areas for future research and a documentation of all Project Deliverables;
	  ○ the preparation of a final presentation to the Floating Wind JIP Parties ;
	  ○ time dedicated to presenting the main results, findings and outcomes of the Project in the form of a 1-hour webinar to the Floating Wind JIP Parties; and
	  ○ the provision of inputs for the Floating Wind JIP Cost Model by completing the Floating Wind JIP Cost Model Input Sheet (Carbon Trust template).
	Bidders should be aware that the Carbon Trust and the Floating Wind JIP Parties usually require 2-3 weeks to review and provide feedback on each Project Deliverable, with at least one round of review comments to be accommodated. This should be considered when calculating Your Bid Price.

Project Deliverables: - **D06: Monthly flash reports** - **D07: Executive Summary Report** - **D08: Final presentation** - **D09: Delivery of webinar** - **D10: Project Closeout Form** - **D11: Input sheet for Floating Wind JIP Cost Model**	
Expenses	The Bidder should detail the amount of expenses it expects to incur throughout the Project. Expenses will be paid as incurred up to the amount specified and any unused balance will not be paid.

5. Intellectual Property, Knowledge and Input Data

5.1. Full details of the intellectual property requirements and conditions can be found in the attached Floating Wind JIP Stage III Contractors' Conditions.

5.2. The Carbon Trust and/or the Floating Wind JIP Partners are able to make available the following input data, background IP or other resources to the successful Bidder for the purposes of the completing the Project, subject to the confidentiality conditions in the Floating Wind JIP Stage III Contractors' Conditions:

a) None

5.3. **Subcontractors and consortium bids**: It is the discretion of the bidder if they choose to engage third parties to support delivery of a prospective project. The bidder is responsible for agreeing and enforcing any required contractual agreements related to project delivery, which include the flow down of the contractors' conditions assigned to this ITT.

5.4. **Access to modelling data & previous project deliverables**: Unless specifically stated within the scope of work the bidder should not anticipate receiving previous Floating Wind JIP deliverables to support with their delivery of the project and should cost their bid submissions accordingly. For projects requiring modelling, the Floating Wind JIP 15MW reference turbine files will be shared with the bidder to support with delivery. It should be assumed that no further modelling files or data sets will be shared unless otherwise stated in the scope of work and bidders should cost their bid submissions accordingly.

5.5. **Stakeholder Engagement**: As outlined within criterion 3 contractors are required to have relevant relationships to enable delivery of the project. Although the Floating Wind JIP partners as well as organisations within the Floating Wind Advisory Group will provide some form of engagement to the project this should not be relied upon solely. The bidder should have the necessary contacts in place to ensure they are able to obtain the required input to ensure delivery of the project. When engaging with third parties (including innovators) the bidder is required to ensure sufficient data sharing and non-disclosure agreements are in place to meet the requirements of the scope of work.

6. Bid Pricing

6.1. To provide Bidders with greater clarity on the nature, level and type of work involved in the various Work Packages, the Total Budget for the delivery of this Project is Project is £300,000 however proposals that are able to meet the project requirements for less will be considered favourably

6.2. The Bid Price submitted with the Tender must be derived from the cost breakdown in the Bid Price Calculation Sheet, and must include all expenses. The Bid Price is the price for the activities that will address the Scope of Work (and any Alternative Work proposed by the Bidder). The Bid Price Calculation Sheet and the Bid Price shall not include the price of any Additional Work suggested by the Bidder. Instead, the price for such Additional Work Packages shall be stated separately to the Bid Price in the Main Bid Document.

6.3. If the Bid Price exceeds the expected range of the Total Budget as stated under section 6.1, to avoid receiving a lower score for criterion 4, in the Main Bid Document the Bidder should provide a clear and justified reason why the Bid Price exceeds the expected budget.

6.4. All costs and rates quoted in the Main Bid Document and Bid Price Calculation Sheet must be in GBP (£) and all staff rates quoted in the Tender must represent the Day Rate for employment of staff members.

6.5. Any expenses must be separately included under Expenses.

7. Tender Evaluation Criteria

Bidders should take the following evaluation criteria into account when preparing and submitting their Tenders. In the event of equivalent scores of two or more received Tenders, suppliers and sub-contractors who have committed to decarbonisation targets (see end of this section) will be preferred.

CRITERION 1: APPROACH TO WORK (WEIGHTING: 30%)

Description	Information required from bidders
Proposed Approach	In the Main Bid Document, Bidders are required to provide a clear and detailed description on how they plan to deliver the work for this Project. The description should include an initial overview on the approach followed by a description on how each Work Package and task will be delivered. Also, Bidders need to justify how their proposed approach meets the objectives of the Project.
Additional Work	If there is any Additional Work proposed by the Bidder, these aspects will be evaluated separately. The suggestion of Additional Work by the Bidder will not have a negative impact on the evaluation of the Tender.
Project management	Bidders are required to describe how they will manage the project utilising appropriate resources and describe how they will work with the various stakeholders to acquire information and manage potentially conflicting relationships.

CRITERION 2: EXPERIENCE (WEIGHTING: 30%)

Description	Information required from Bidders
Experience in modelling and simulation	In the Main Bid Document, Bidders should elaborate on experience of the criteria described to the left and explain how these past experiences are relevant for this Tender. In addition, Bidders should provide at least two examples (with reference to specific roles, responsibilities and activities the Bidder undertook) of previous work which illustrates the Bidder's skills, capabilities, and experience in all of these areas (Bidders may wish to make reference to submitted examples of previous work for other clients). Bidders are advised that experience is considered a key important criterion and partnerships with other companies to support certain areas of experience are welcomed. All experience / case studies should be attached as an appendix to the Main Bid Document.
Experience of WTG frequency analysis	
Experience in tower design and knowledge of floater design	

CRITERION 3: STAFF SKILLS (WEIGHTING: 15%)

Description	Information required from bidders
CVs/Resumes	Bidders are required to provide detailed CVs/Resumes for any key personnel who will be involved with this Contract together with proposed Project structure, intended position of the key personnel in

	the Project, and main responsibilities. CVs should include professional memberships of proposed staff working on this Project.
Applicable skills	Bidders should elaborate on the most relevant skills of the key personnel that will be involved in the Project.
Prior experience from involved staff	Please include examples of similar work performed by the proposed staff members, explaining how is relevant to the Approach to Work.
Expert engagement	A close working relationship with key stakeholders such as, floater substructure designers, original equipment manufacturers (OEMs), wind turbine manufacturers, as well as the Floating Wind JIP Parties are seen relevant to the success of this Project. Please supply ideas of how these groups can be engaged and leveraged.

CRITERION 4: BID PRICE (WEIGHTING: 25%)

Description	Information required from bidders
Day rates and man hours (man-h) for all staff grades	In the Bid Price Calculation Sheet, Bidders are required to provide day rates for all staff grades and to input the man-h involved in each Work Package
Price for the delivery of the Project	In the Bid Price Calculation Sheet, Bidders are required to provide a cost breakdown by Work Package, including man hours and day rates of personnel completing the work as specified in section 4. Bidders are required to specify expected expenses separate from the estimated budget for each Work Package. The Bid Price will be assessed on the price for the Approach to Work (which includes the price of the Work Packages in the Scope of Work and any Alternative Work proposed by the Bidder). If there is any Additional Work proposed by the Bidder, this will be evaluated separately. The suggestion of Additional Work by the Bidder will not have a negative impact on the evaluation of the Tender. Carbon Trust will reimburse reasonable expenses at cost and receipts may be requested. Pre-approval will be required for travel costs over £150 per return journey and combined hotels & subsistence cost exceeding £200 per day. Bidders will be required to confirm or comment on their ability to carry out the activities detailed in the Scope of Work within the initial term of the Contract and provide an outline plan of work.

The Carbon Trust has committed to reaching Net Zero by 2050. Our associated targets have been validated by the Science Based Targets Initiative (SBTi)[1]. To meet the initial targets that we have set for ourselves, we encourage all our suppliers and sub-contractors to themselves have equivalent plans

[1] https://sciencebasedtargets.org/

in place by 2026 at the latest. Measuring your emissions, setting targets, and encouraging others to do so will help push the needle on decarbonisation together.

Accordingly, we have included climate change commitment clauses in the Floating Wind JIP Stage III Contractors' Conditions. Bidders may submit Tenders even if they cannot meet the defined conditions now, but if this is the case this should be clearly flagged in the Tender Certificate as a requested change to the Floating Wind JIP Stage III Contractors' Conditions. Please reach out if you need more information on this.

8. Glossary

Approach to Work	Has the meaning set out in section 3.1.
Additional Work	Any activities that are proposed by the Bidder in addition to those in the Scope of Work. It is at the discretion of the Carbon Trust to consider Additional Work in the evaluation of the Tender. The suggestion of Additional Work by the Bidder will not have a negative impact on the evaluation of the Tender.
Alternative Work	Deviations from the Scope of Work that are proposed by the Bidder, which replace work or tasks in the Scope of Work. Alternative Work will be treated as non-optional in the evaluation of the Tender.
Award Letter	A letter, issued by Carbon Trust, informing the Contractor about the award of the Contract. The Award Letter is issued together with the Final Scope of Work and the Floating Wind JIP Stage III Contractors' Conditions.
Bidder	An individual, a company, an organisation or a consortium submitting a bid for the Project.
Bid Price	The total price for the Bidder to complete the Project in line with the Approach to Work. The Bid Price shall include the price for the delivery of all Work Packages described in the Scope of Work and any Alternative work proposed by the Bidder. The Bid Price shall not include the price of any Additional Work suggested by the Bidder.
Bid Price Calculation Sheet	An Excel template provided by the Carbon Trust that is to be provided by the Bidder in addition to the Main Bid Document.
Carbon Trust Project Manager	The Carbon Trust employee who serves as first point of contact in relation to this ITT and the Project.
Clarification Document	A document containing all received clarification questions and Carbon Trust's responses to these questions.
Contract	A document consisting of the Award Letter, the Final Scope of Work, the Floating Wind JIP Contractors' Conditions, and any clarifications agreed in writing.
Contractor	The Bidder (or in the case of a consortium, Bidders) selected for the delivery of the Project.
Description of Tender	This document.
Due Diligence Questionnaire	A questionnaire that is to be completed by shortlisted Bidders should Carbon Trust's bidders vetting process give reason to conduct a due diligence. In case of a consortium, the Due Diligence Questionnaire is to be filled-in by the designated Project Coordinator.

Executive Summary Report	A 3-10 pages report containing a high-level description of the Work Programme and a summary of the relevant results, findings and conclusions of the Project. Information can be taken from summaries written for previous Work Packages
Final Scope of Work	The agreed Work Programme for the Project, based on the Scope of Work and the Approach to Work, which is mutually agreed between the Carbon Trust and the Contractor.
Flash Report	A template provided by the Carbon Trust at Project start.
Floating Wind JIP	Floating Wind Joint Industry Programme
Floating Wind JIP Partners	A group of leading offshore wind farm developers supporting the Floating Wind JIP.
Floating Wind JIP Cost Model	The Contractor is not expected to produce a cost model of its own, but rather provide an estimate, with appropriate explanation, for potential cost implications of the research undertaken within the frame of the delivered project. The Carbon Trust will provide a template to assist the Contractor in this process.
Floating Wind JIP Cost Model Input Sheet	A form (to be provided by Carbon Trust) which the Contractor should complete in WPA to provide input into the Floating Wind JIP Cost Model. I
Invitation to Tender (ITT)	The following group of documents: Description of Tender (this document); Floating Wind JIP Stage III Contractors' Conditions; Tender Certificate template; Bid Price Calculation Sheet template; and Clarification Document (if applicable[2]).
Main Bid Document	Has the meaning given in section 3.1. No template is provided.
Project	The Floater and Tower Designs for Larger WTG's or FTDL project.
Project Closeout Form	A template provided by the Carbon Trust towards the end of the Project.
Project Deliverables	The individual deliverables including, but not limited to, any reports, technical notes, documents, drawings, models, data, webinars to be produced by the Contractor according to the Scope of Work (see section 4) or as otherwise agreed in the Final Scope of Work.
Scope of Work	The (preliminary) Work Programme for the Project as defined in section 4 of this document. At Contract award, the Scope of Work will be replaced by the Final Scope of Work.

[2] A Clarification Document will not be published if no clarification questions are received in relation to this ITT.

Tender	Bidder's response to this ITT consisting of the following elements: - Main Bid Document (proposal); - signed Tender Certificate; and - Bid Price Calculation Sheet
Tender Certificate	A declaration that is to be provided by the Bidder (in case of a consortium: by the designated Project Coordinator) in addition to the Main Bid Document.
Total Budget	The expected amount of money available that will be made available from the Floating Wind JIP to the Contractor for the delivery the Project.
Work Package	A group of related tasks to be delivered under the Project.
Work Programme	The entirety of all Work Packages.