



**WAVE HUB LIMITED**

**Invitation to Tender (ITT) and Service Specification:  
PROVISION OF AN ONLINE AIS AND GNSS  
MONITORING AND ALERT SYSTEM**

**ITT Ref. WH/2017/TEN/06**

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## 1 DEFINITIONS & ABBREVIATIONS

The following abbreviations may be used within this document:

AIS	Automatic Identification System
ALARP	As Low As Reasonably Practicable
ASMS	Active Safety Management System
ERCoP	Emergency Response Cooperation Plan
GNSS	Global Navigation Satellite System
HV	High Voltage
HSEQ	Health, Safety, Environment & Quality (Management)
km	Kilometre
m	Metre
MCA	Maritime & Coastguard Agency
OPANS	Wave Hub Operations Planning and Notification System
VAB	Virtual AIS Beacon
WHL	Wave Hub Ltd

The following definitions are used within this document:

CLIENT	Wave Hub Limited and its appointed authorised representatives and agents
CONTRACTOR	Company appointed for the supply of the Services to Wave Hub Ltd
SUBCONTRACTOR	Any party entering into a contractual agreement with the Contractor for performance of any part of the Services
SERVICES	All permanent and temporary activities defined in this document and its associated referenced documents and drawings together with all other activities necessary for the successful completion of the Contract intention, whether explicitly stated or implied
SHALL / MUST	Indicates mandatory requirements
SHOULD	Indicates preferred course of action
MAY	Indicates optional course of action

## 2 INTRODUCTION

Wave Hub is the world’s largest and most technologically advanced facility for pre-commercial demonstration of marine renewable energy technology. The site is located approximately 10 nautical miles (16km) from Hayle on the north coast of Cornwall.

Wave Hub was purpose built to provide wave energy and floating wind developers with the opportunity to demonstrate the technology over several years on a grid-connected site with a realistic, monitored and well-understood marine environment.

The 8-square km offshore Wave Hub deployment site is connected to the shoreline beach joint via a live 33kV subsea power cable, approximately 25km long and presented on all UKHO admiralty charts of the area. It is buried wherever possible inshore. Further offshore the export cable is protected with a rock berm.

At the termination of the main subsea export cable offshore is the Wave Hub – the Subsea Cable Junction – also covered by a rock berm and at the centre of the consented and charted Wave Hub Safety Zone (500m diameter).

Radiating out from the Wave Hub and staggered up the western side of the site are four live 33kV subsea cable tails of varying length. These afford all developers near project access to a cable connection point.

A detailed schematic of the installed offshore Wave Hub cable system can be viewed in the supporting documentation.

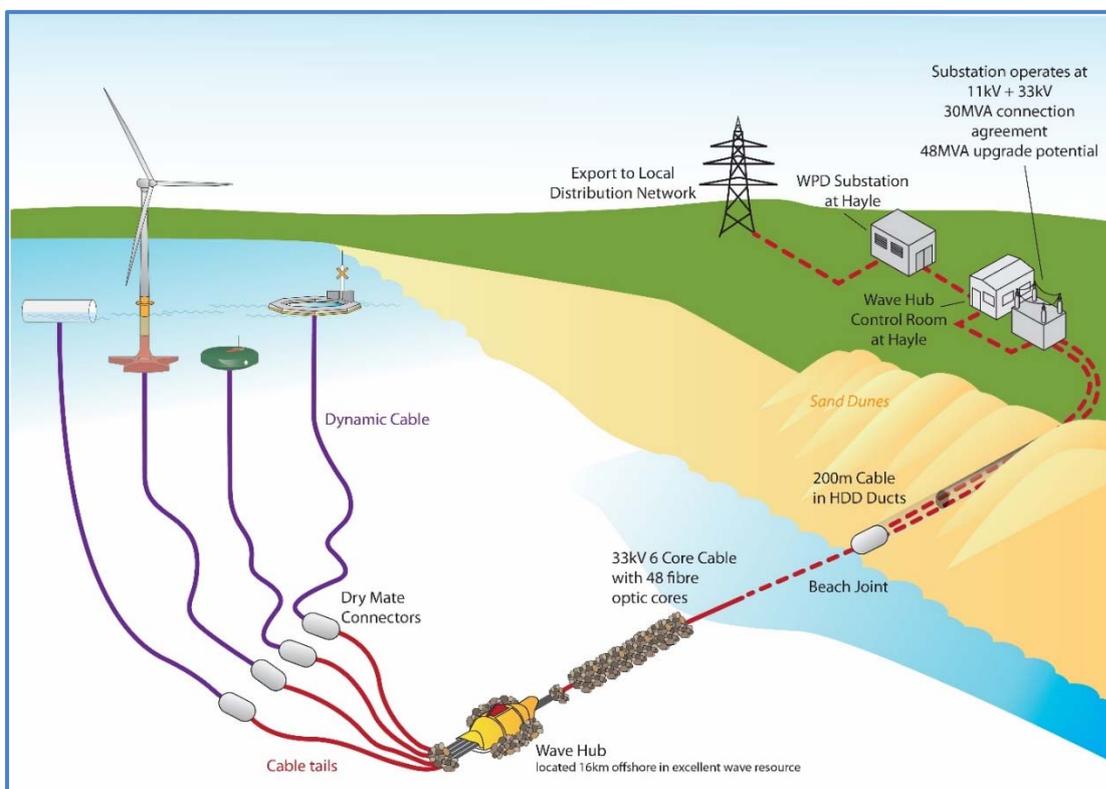


Figure 1 Wave Hub Schematic

The Wave Hub offshore deployment site is 1950m x 3950m, leased by Wave Hub Ltd from the Crown Estate, fully consented and included on all UKHO admiralty charts of the area and additionally on KIS-ORCA Fisherman Awareness Charts.

Wave Hub is managed and operated by Wave Hub Ltd whose purpose is to:

- Progress technology development by enabling connection and testing of offshore renewable energy installations;
- Drive research and innovation to help overcome the final hurdles to full commercialisation; and
- Foster a growing offshore renewable energy industry and stimulate associated community benefits.

Wave Hub Ltd is also the seabed leaseholder of a wave energy demonstration zone off the coast of Pembrokeshire.

As a requirement of our statutory consents we are required to monitor the offshore site, both asset location and vessel activity. This requires an online system that accepts and analyses both AIS and GNSS data. The MCA requires access to this system under the agreed ERCoP.

## 2.1 CURRENT SITE MARKINGS

The current marking arrangements for the Wave Hub site, agreed with Trinity House and the MCA, are two Cardinal Marks (North and South general area markers) and four site defining Special Marks (with GPS synchronised lights). Overall, the Wave Hub Aids to Navigation are rated IALA Category 2. A detailed site plan is available in the supporting documentation.

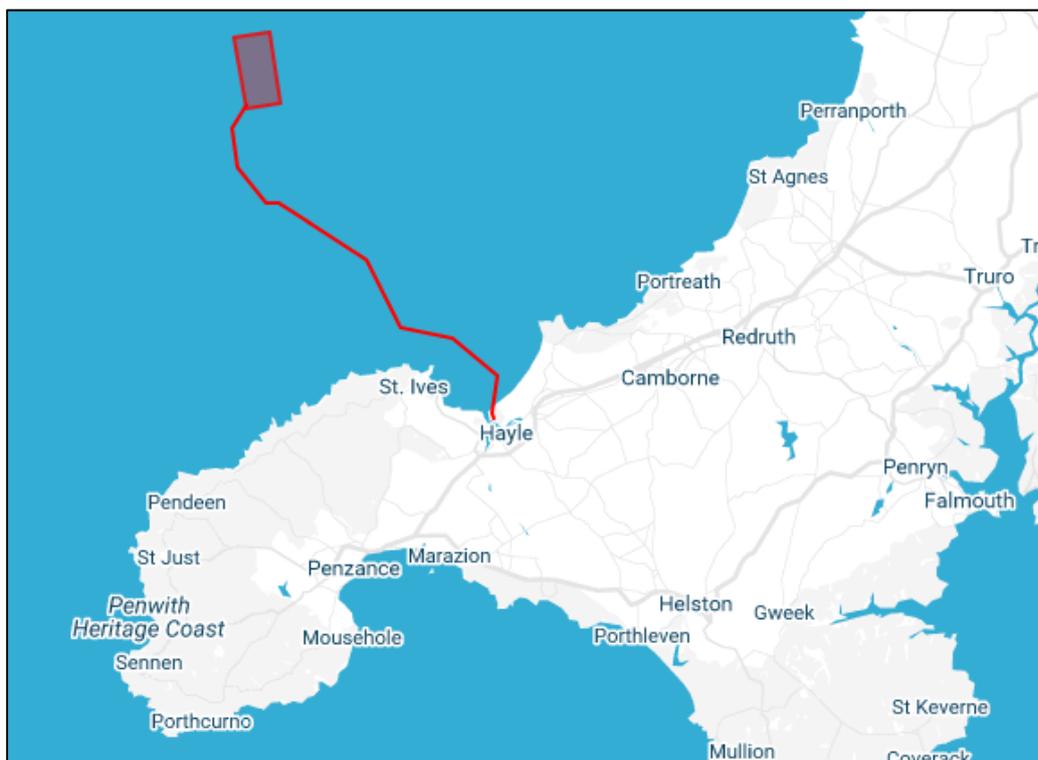


Figure 2 Wave Hub Location Map.



## **2.2 PURPOSE OF DOCUMENT**

The purpose and scope of this ITT and supporting documentation is to explain in further detail the requirements of the Client and the procurement process for submitting a compliant tender proposal.

### 3 TENDER CONDITIONS AND CONTRACTUAL REQUIREMENTS

This section of the ITT sets out the Client's contracting requirements, general policy requirements, and the general tender conditions relating to this procurement process ('**Procurement Process**').

#### 3.1 CONTRACTING REQUIREMENTS

The contracting authority is the Client, which includes any subsidiary companies and other organisations that control or are controlled by the Client from time to time.

The Client's contracting and commercial approach in respect of the required goods and/or services is set out in the attached ***Contract for Provision of an AIS and GNSS Asset Management Service for Wave Hub*** (the Proposed Contract). By submitting a tender response, you are agreeing to be bound by the terms of this ITT and the Contract without further negotiation or amendment.

If you have any concerns or queries in relation to the Contract, you should submit a clarification request in accordance with the provisions of this ITT by the Clarification Deadline (as defined below in the Timescales section of this ITT). Following such clarification requests, the Client may issue a clarification change to the Contract that will apply to all potential Contractors submitting a tender response.

The Client is under no obligation to consider any clarifications/amendments to the Contract proposed following the Clarification Deadline, but before the Tender Response Deadline (as defined below in the Timescales section of this ITT). Any proposed amendments that are received from a potential Contractor as part of its tender response shall entitle the Client to reject that tender response and to disqualify that potential Contractor from this Procurement Process.

#### 3.2 GENERAL POLICY / MANDATORY REQUIREMENTS

By submitting a tender response in connection with this Procurement Process, potential Contractors confirm that they and any consortium members and/or Subcontractors will comply with all applicable laws, codes of practice, statutory guidance and applicable Client requirements relevant to the goods and/or services being supplied, including but not limited to those referenced in any specification, paragraph or attachment to this ITT.

#### 3.3 GENERAL TENDER CONDITIONS ('TENDER CONDITIONS')

##### 3.3.1 Application of these Tender Conditions

In participating in this Procurement Process and/or by submitting a tender response it will be implied that you accept and will be bound by all the provisions of this ITT. Accordingly, tender responses should be on the basis of and strictly in accordance with the requirements of this ITT.

##### 3.3.2 Verification

Your tender response is submitted on the basis that you consent to the Client carrying out all necessary actions to verify the information that you have provided.

### **3.3.3 Information Provided to Potential Contractors**

Information that is supplied to potential Contractors as part of this Procurement Process is supplied in good faith. The information contained in the ITT, the supporting documents and in any related written or oral communication is believed to be correct at the time of issue but the Client will not accept any liability for its accuracy, adequacy or completeness and no warranty is given as such. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of the Client.

### **3.3.4 Potential Contractors to make their own enquires**

You are responsible for analysing and reviewing all information provided to you as part of this Procurement Process and for forming your own opinions and seeking advice as you consider appropriate. You should notify the Client promptly of any perceived ambiguity, inconsistency or omission in this ITT and/or any of its associated documents and/or in any information provided to you as part of this Procurement Process.

### **3.3.5 Amendments to the ITT**

At any time prior to the Tender Response Deadline, the Client may amend the ITT. Any such amendment shall be issued to all Tenderers and will also be listed on the Wave Hub web site [www.wavehub.co.uk/about-us/tender-opportunities](http://www.wavehub.co.uk/about-us/tender-opportunities) for the duration of the tender period. If deemed appropriate to ensure potential Tenderers have reasonable time in which to take such amendment into account, the Tender Response Deadline shall, at the discretion of the Client, be extended. Your tender response must comply with any amendment made by the Client in accordance with this paragraph or it may be rejected.

### **3.3.6 Compliance of Tender Response Submission**

Any goods and/or services offered should be on the basis of and strictly in accordance with the ITT (including, without limitation, any specification of the Client's requirements, these Tender Conditions and the Contract) and all other documents and any clarifications or updates issued by the Client as part of this Procurement Process.

### **3.3.7 Format of Tender Response Submission**

Tender responses must comprise the relevant documents specified by the Client completed in all areas and in the format requested. Any documents requested by the Client must be completed in full. It is therefore important that you read the ITT carefully before completing and submitting your tender response.

### **3.3.8 Modifications to Tender Response Documents Once Submitted**

You may modify your tender response prior to the Tender Response Deadline by giving written notice to the Client. Any modification should be clear and submitted as a complete new tender response in accordance with this ITT.

### **3.3.9 Rejection of Tender Responses or other Documents**

A tender response or any other document requested by the Client may be rejected which:

- Contains gaps, omissions, misrepresentations, errors, uncompleted sections, or changes to the format of the tender documentation provided.
- Contains hand written amendments which have not been initialled by the authorised signatory.
- Does not reflect and confirm full and unconditional compliance with all of the documents issued by the Client forming part of the ITT.
- Contains any caveats or any other statements or assumptions qualifying the tender response that are not capable of evaluation in accordance with the evaluation model or requiring changes to any documents issued by the Client in any way.
- Is not submitted in a manner consistent with the provisions set out in this ITT.
- Is received after the Tender Response Deadline.
- Does not offer a fixed and firm price where requested.
- Is not valid for the requested period.
- Does not comply in full and unconditionally with the proposed Contract.

### **3.3.10 Disqualification**

If you breach these Tender Conditions, if there are any errors, omissions or material adverse changes relating to any information supplied by you at any stage in this Procurement Process, if any other circumstances set out in this ITT, and/or in any supporting documents, entitling the Client to reject a tender response apply and/or if you or your appointed advisers attempt:

- To inappropriately influence this Procurement Process.
- To fix or set the price for goods or services.
- To enter into an arrangement with any other party that such party shall refrain from submitting a tender response.
- To enter into any arrangement with any other party (other than another party that forms part of your consortium bid or is your proposed Subcontractor) as to the prices submitted.
- To collude in any other way.
- To engage in direct or indirect bribery or canvassing by you or your appointed advisers in relation to this Procurement Process; or
- To obtain information from any of the employees, agents or advisors of the Client concerning and during this Procurement Process (other than as set out in these Tender Conditions) or from another potential Contractor or another tender response.

The Client shall be entitled to reject your tender response in full and to disqualify you from this Procurement Process. Subject to the 'Liability' Tender Condition below, by participating in this Procurement Process you accept that the Client shall have no liability to a disqualified potential Contractor in these circumstances.

### **3.3.11 Tender Costs**

You are responsible for obtaining all information necessary for preparation of your tender response and for all costs and expenses incurred in preparation of the tender response. Subject to the 'Liability' Tender Condition below, you accept by your participation in this procurement, including without limitation the submission of a tender response, that you will not be entitled to claim from the Client any costs, expenses or liabilities that you may incur in tendering for this procurement irrespective of whether or not your tender response is successful.

### **3.3.12 Rights to cancel or vary this Procurement Process**

By issuing this ITT, entering into clarification communications with potential Contractors or by having any other form of communication with potential Contractors, the Client is not bound in any way to enter into any contractual or other arrangement with you or any other potential Contractor. It is intended that the remainder of this Procurement Process will take place in accordance with the provisions of this ITT but the Client reserves the right to terminate, suspend, amend or vary (to include, without limitation, in relation to any timescales or deadlines) this Procurement Process by notice to all potential Contractors in writing and with adherence to applicable EU & UK Procurement Law and in particular the Public Contracts Regulations 2015. Subject to the 'Liability' Tender Condition below, the Client will have no liability for any losses, costs or expenses caused to you as a result of such termination, suspension, amendment or variation.

### **3.3.13 Consortium Members and Subcontractors**

It is your responsibility to ensure that any staff, consortium members, Subcontractors and advisers abide by these Tender Conditions and the requirements of this ITT.

### **3.3.14 Liability**

Nothing in these Tender Conditions is intended to exclude or limit the liability of the Client in relation to fraud or in other circumstances where the Client 's liability may not be limited under any applicable law.

## **3.4 CONFIDENTIALITY AND INFORMATION GOVERNANCE**

### **3.4.1 Confidentiality**

All information supplied to you by the Client, including this ITT and all other documents relating to this Procurement Process, either in writing or orally, must be treated in confidence and not disclosed to any third party (save to your professional advisers, consortium members and/or Subcontractors strictly for the purposes only of helping you to participate in this Procurement Process and/or prepare your tender response) unless the information is already in the public domain or is required to be disclosed under any applicable laws.

You shall not disclose, copy or reproduce any of the information supplied to you as part of this Procurement Process other than for the purposes of preparing and submitting a tender response. There must be no publicity by you regarding the Procurement Process or the future award of any Contract unless the Client has given express written consent to the relevant communication.



This ITT and its accompanying documents shall remain the property of the Client and must be returned on demand.

The Client reserves the right to disclose all documents relating to this Procurement Process, including without limitation your tender response, to any employee, third party agent, adviser or other third party involved in the procurement in support of, and/or in collaboration with the Client. The Client further reserves the right to publish the Contract once awarded and/or disclose information in connection with Contractor performance under the Contract in accordance with any public-sector transparency policies (as referred to below). By participating in this Procurement Process, you agree to such disclosure and/or publication by the Client in accordance with such rights reserved by it under this paragraph.

### **3.4.2 Freedom of Information**

The Freedom of Information Act 2000 ('FOIA'), the Environmental Information Regulations 2004 ('EIR'), and public-sector transparency policies, including the placing of contract award notices on the Contracts Finder database, apply to the Client (together the 'Disclosure Obligations').

You should be aware of the Client's obligations and responsibilities under the Disclosure Obligations to disclose information held by the Client. Information provided by you in connection with this Procurement Process, or with any contract that may be awarded as a result of this exercise, may therefore have to be disclosed by the Client under the Disclosure Obligations, unless the Client decides that one of the statutory exemptions under the FOIA or the EIR applies.

If you wish to designate information supplied as part of your tender response or otherwise in connection with this tender exercise as confidential, you must provide clear and specific detail as to:

- The precise elements which are considered confidential and/or commercially sensitive.
- Why you consider an exemption under the FOIA or EIR would apply; and
- The estimated length of time during which the exemption will apply.

### **3.4.3 Protective Markings**

The use of blanket protective markings of whole documents such as 'commercial in confidence' will not be sufficient. By participating in this Procurement Process you agree that the Client should not and will not be bound by any such markings.

In addition, marking any material as 'confidential' or 'commercially sensitive' or equivalent should not be taken to mean that the Client accepts any duty of confidentiality by virtue of such marking. You accept that the decision as to which information will be disclosed is reserved to the Client, notwithstanding any consultation with you or any designation of information as confidential or commercially sensitive or equivalent you may have made. You agree, by participating further in this Procurement Process and/or submitting your tender response, that all information is provided to the Client on the basis that it may be disclosed under the Disclosure Obligations if the Client considers that it is required to do so and/or may be used by the Client in accordance with the provisions of this ITT.



#### **3.4.4 Personal Data**

Tender responses are also submitted on the condition that the appointed Contractor will only process personal data (as may be defined under any relevant data protection laws) that it gains access to in performance of this Contract in accordance with the Client's instructions and will not use such personal data for any other purpose. The appointed Contractor will undertake to process any personal data on the Client's behalf in accordance with the relevant provisions of any relevant data protection laws and to ensure all consents required under such laws are obtained.

## 4 TENDERING INSTRUCTIONS

### 4.1 TENDER VALIDITY

Your tender response must remain open for acceptance by the Client for a period of ninety (90) days from the Tender Response Deadline. A tender response not valid for this period may be rejected by the Client.

### 4.2 PRICING APPROACH

You should complete, in full, a pricing schedule utilising the template format provided. All costings should be firm and unambiguous. Please note this pricing schedule does not contain formula and requires manual input.

All prices and financial data must be submitted in pounds sterling and be valid for a period of ninety (90) days. All costs should be detailed less VAT, where any price attracts Value Added Tax the rate of VAT applicable should be recorded in the related comments section.

**Any costs related to completion of the scope of work but not specifically mentioned in the pricing schedule will be assumed to be included in the costs.**

Prices must be fixed and firm only, failure to provide fixed and firm prices may result in tender rejection.

### 4.3 KEY BACKGROUND DOCUMENTS AND FURTHER INFORMATION

Further relevant background documents/information have been provided to potential Contractors as electronic attachments to this ITT.

### 4.4 TIMESCALES

Subject to any changes notified to potential Contractors by the Client in accordance with the Tender Conditions, the following timescales shall apply to this Procurement Process:

Activity	Date / Time
Issue of Contract Notice / availability of ITT documents	8 <sup>th</sup> September 2017, 12:00 (BST)
Deadline for clarification questions (Clarification Deadline)	14 <sup>th</sup> September 2017, 17:00 (BST)
Client to respond to clarification questions	15 <sup>th</sup> September 2017, 17:00 (BST)
Deadline for Submission of ITT responses by potential Contractors (Tender Response Deadline)	22 <sup>nd</sup> September 2017, 16:00 (BST)
Award decision letters issued	26 <sup>th</sup> September 2017, 17:00 (BST)
Contract concluded with winning Contractor	29 <sup>th</sup> September 2017, 17.00 (BST)
Contract commencement	01 <sup>st</sup> October 2017, 00:01 (BST)

Table 1 Procurement Timescales

## 4.5 INSTRUCTIONS FOR RESPONDING

### 4.5.1 General Response Instructions

The following mandatory requirements should be complied with when submitting your response to this ITT:

- Please ensure that you send your submission in good time to prevent issues with technology – late tender responses may be rejected by the Client.
- Please ensure that information provided as part of your response is of sufficient quality and detail that an informed assessment of it can be made by the Client.
- Do not submit any additional supporting documentation with your tender response except where specifically requested to do so as part of this ITT. PDF, JPG, PPT, Word and Excel formats can be used for any additional supporting documentation (other formats should not be used without the prior written approval of the Client).
- All attachments/supporting documentation should be provided separately to your main tender response and clearly labelled to make it clear as to which part of your tender response it relates.
- If you submit a generic policy/document you must indicate the page and paragraph reference that is relevant to a particular part of your tender response.
- Where supporting evidence is requested as ‘or equivalent’ – you must demonstrate such equivalence as part of your tender response.
- Any deliberate alteration of a Client requirement as part of your tender response will invalidate your tender response to that requirement and for evaluation purposes you shall be deemed not to have responded to that particular requirement;
- Responses should be concise, unambiguous, and should directly address the requirement stated.
- Your tender responses to the tender requirements and pricing will be incorporated into the Contract, as appropriate.

### 4.5.2 Technical Clarification Requests

All technical clarification requests should be submitted to [clarifications@wavehub.co.uk](mailto:clarifications@wavehub.co.uk) and clearly marked ‘**AIIS CLARIFICATION REQUEST**’ by the Clarification Deadline, as set out in the Timescales section of this ITT. The Client is under no obligation to respond to clarification requests received after the Clarification Deadline.

Any clarification requests should clearly reference the appropriate paragraph in the ITT documentation and, to the extent possible, should be aggregated rather than sent individually.

All clarifications will be published in a table on the Wave Hub website [www.wavehub.co.uk/about-us/tender-opportunities](http://www.wavehub.co.uk/about-us/tender-opportunities) for the duration of the tender period only.

The Client may at any time request further information from potential Contractors to verify or clarify any aspects of their tender response or other information they may have provided. Should you not provide supplementary information or clarifications to the Client by any deadline notified to you,



your tender response may be rejected in full and you may be disqualified from this procurement process.

#### 4.5.3 Tender Submission Instructions

Your tender should be signed by an authorised signatory and submitted electronically as PDF files to the following email address:

[tenders@wavehub.co.uk](mailto:tenders@wavehub.co.uk)

Your tender response must be marked as '**AIS TENDER RESPONSE**' within the email subject field. Where multiple electronic responses are issued from a single organisation, each email must be marked as 'Part No. of Total Parts'.

Note: The maximum single attachment size (single or sum of multiples) accepted by the dedicated tender receipt mailbox is 25MB. Should your tender response exceed this limit it should be submitted in a number of smaller parts.

Safe delivery of the tender is the Tenderers responsibility.

The date and time of the tender delivery will be recorded upon receipt by Client.

Potential Contractors should use terminology that is consistent with the ITT and Contract, all documents and all correspondence relating to this procurement process must be written in English including without limitation any documents submitted as part of a tender response. **Your tender should also clearly confirm that there has been 'no collusion, bribery or conflict of interests in the production of this tender'.**

#### 4.6 TENDER SUBMISSION

The following paragraphs detail the information requirements the tenderer is to supply with their proposal. It is the tenderers responsibility to fully understand and account for all aspects of the scope of work to ensure that all responses are fully compliant with the information supplied within all sections of this ITT and any attachment.

**All tender submissions including attachments where applicable are to be received by Client in electronic format only.**

The tender should be signed by an authorised signatory and follow the structure set out in this ITT. The terminology used should be consistent with the ITT and Contract. All documents and all correspondence relating to this procurement process must be written in English including without limitation any documents submitted as part of a tender response.

##### 4.6.1 Compliance Statements

The tender must include the following statements:

- Statement confirming compliance to all Mandatory Requirements set out in this ITT;
- Statement confirming that there has been:

'No collusion, Bribery or conflict of interest in the production of this tender'.

#### 4.6.2 Contractor & Service Organisation

- Contractor's organisation overview;
- Previous relevant experience (3 years previous) and track record in comparable service provision. At least two client references should be provided;
- Service delivery organogram including key personnel and Subcontractors. Roles and responsibilities shall be defined along with competency and experience of key personnel, the CV's key personnel should be provided. The service provision structure shall include service management, service technical support, data analysis, web hosting and any external service providers.

#### 4.6.3 Proposed Programme of Works

Tenderer to provide a schedule from Contract award to full service availability inclusive of Client staff training, which will form part of the Contract, detailing how it intends to complete the setup work within the timescales given below.

**Contract commencement:** 1<sup>st</sup> October 2017

**Latest service commissioning date (Start Date):** 30 October 2017

#### 4.6.4 Insurance

The following insurance levels are deemed the minimum acceptable levels that the successful Contractor will have in place for the entire Term of the Contract, and confirmation of this cover should be included in the tender:

- Employer's liability to the minimum coverage and limit of indemnity required by any applicable legislation;
- Professional indemnity insurance within a limit of indemnity not less than £2,000,000 (two million pounds) for each and every claim;
- Such further insurances (if any) required by applicable legislation.

#### 4.6.5 Quality, Health, Safety & Environment

- Completed FORM M001 Contractor HSEQ Questionnaire
- Quality, Health, Safety and environmental policy documents/statements and any additional relevant information regarding ensuring quality, protection of the environment and minimisation of carbon emissions.

#### 4.6.6 Technical Proposal

Technical proposal to the requirements of this ITT and Service specification. Particularly, Contractors must demonstrate experience, capability and the Service offer in the following areas.



The core provision of an online AIS and GNSS monitoring and alert system (the 'Services'):

- a) AIS Signal Coverage in relation to Wave Hub
- b) Asset input, drawing, and user accessibility
- c) Positional accuracy and measurement
- d) Protection zone setup and management
- e) Alarm protocols available (both for Asset Protection and for Marine Coordination)
- f) Data recording and Incident assessment
- g) Backdrop data presentation (bathymetric survey data, admiralty charts, cable KP markers and coordinate grids as a minimum)
- h) GNSS (FTP) feed acceptance

Additional Services that will be authorised as required by Client through Variation Order:

- i) Virtual AIS Beacon (VAB) setup, interface and support
- j) Traffic analysis and reporting

Submissions must be clear, professional and concise and must not deviate from the specification though additional services that may be of interest or add value are welcome.

#### **4.6.7 Remuneration Schedule**

The Annual Services Charge shall include the following for the Wave Hub site (inclusive of export cable, renewable energy development area, aids to navigation, safety zone and surrounding waters sufficient to monitor the local area):

- Online monitoring service provision for up to ten users;
- Provision and secure AIS data coverage;
- Provision of switchable back drop data layers including:
  - Up to date UKHO charts at all relevant scales (seamlessly linked to the zoom)
  - Survey data (provided by Wave Hub – bathymetry, side scan sonar – various formats)
  - Cable KP Markers
  - Complex structures – provided in CAD format
  - Coordinate grids
- Provision of up to ten GNSS (various FTP sources) data feeds into the monitoring system

Contractor shall replicate and populate the following cost schedule in their tender. All costs are to be fixed and firm for the maximum Contract Term (4 years).

Item	Description	Breakdown / Comments	Lump Sum £	Total Price £
<b>Core Online AIS and GNSS Monitoring and Alert System Provision (the 'Services')</b>				
1.0	AIS and GNSS monitoring service setup, commissioning and staff training			
2.0	Annual AIS and GNSS Monitoring Services Charge			
<b>Additional Services (to be authorised as required by Client through Contract Variation Order)</b>				
3.0	VAB service setup, commissioning and staff training			
4.0	VAB Annual Service Charge			
5.0	Traffic Assessment and Report			
6.0	Additional ten GNSS data feeds			
<b>Total Tender Sum:</b>				

Table 2 Contract Rates

**Pricing Notes:**

*Traffic assessment and reporting shall be based on one year of recorded AIS data in each case.*

*Set up, service and management of the virtual AIS beacon is assumed to be based at NCI St Ives.*

*Prices should be provided in Pounds Sterling and exclusive of VAT.*

*Prices must be fixed and firm for the Contract Term and any extension thereof (4 years maximum term).*

### Payment philosophy:

- Services Annual Charge – payable quarterly in advance from the date of live Services inception (completion and acceptance of the commissioning of the Services including any related training – the Contract Start Date) and quarterly thereafter;
- Setup charges – payable on completion and acceptance of the commissioning including any related training;
- Traffic reports – payable on acceptance of the final report (including for Client review and acceptance);
- Additional Services or Variation Order – Annual Charge (payments to be aligned with the Services Annual Charge) from the date of the Additional Service inception calculated pro-rata for the remaining duration of the current Contract Services year and then added in full to the Services Annual Charge for subsequent years for the remaining Term of the Contract or as agreed in the Variation Order. Where a Variation Order requires agreement on new rates, these shall be fixed and firm and valid for the remaining Contract Term.

#### 4.6.8 Cancellation Profile

Where terminated or suspended in accordance with the terms of the Contract, the Annual Services Charge inclusive of any ordered Additional Service Charge shall be calculated pro-rata from the Services commissioning date (or anniversary thereof) to the effective date of termination or suspension. Client shall be refunded any overpayment accordingly.

#### 4.7 TENDER CONTENT SUMMARY

The following table details the outline content to be provided with your tender submission, it should not be regarded as exhaustive and it is the tenderers responsibility to ensure all documents requested in any section of this ITT are supplied.

Tender Section	Content
General	Tender Compliance Statements as per 4.6.1
Contractor and Service Organisation	Company Organisation
	Experience & Track Record
	Project Organisation (key personnel CVs to be appended)
	Proposed delivery programme
	Proof of insurances
Quality, Health, Safety & Environmental (QHSE)	Completed FORM M001 Contractor HSEQ Questionnaire
	Contractor Quality & HSE Policies
Technical Proposal	Online AIS and GNSS Monitoring System Technical Offer
	VAB Technical Offer
	Traffic Assessment Capability
Remuneration	Completed Cost Schedule

Table 2 Tender Submission Content Summary.

## 5 EVALUATION & AWARD CRITERIA

### 5.1 EVALUATION STAGES

**Stage 1:** Tender responses will be checked to ensure that they have been completed correctly and all necessary information has been provided. Tender responses correctly completed with all relevant information being provided will proceed to Stage 2. Any tender responses not correctly completed in accordance with the requirements of this ITT and/or containing omissions may be rejected at this point. Where a tender response is rejected at this point it will automatically be disqualified and will not be further evaluated.

**Stage 2:** If a tenderer succeeds in passing Stage 1 of the evaluation, then it will have its detailed tender response to the Client's requirements evaluated in accordance with the evaluation methodology set out below:

### 5.2 AWARD CRITERIA

Responses from potential Contractors will be assessed to determine the most economically advantageous tender using the following criteria and weightings and will be assessed entirely on your response submitted:

Criteria	Weighting
Contractor and Service Organisation	30%
QHSE	10%
Technical Offer	30%
Remuneration Schedule	30%

*Table 3 Award Criteria Weightings*

### 5.3 SCORING MODEL

Tender responses will be subject to an initial review at the start of Stage 2 of the evaluation process. Any tender responses not meeting mandatory requirements will be rejected in full at this point and will not be assessed or scored further. Tender responses not so rejected will be scored by the Client. The following scoring model will be applied.

Points	Interpretation
5	<b>Excellent</b> – Overall the response demonstrates that the tenderer meets all areas of the requirement and provides all of the areas evidence requested in the level of detail requested. This, therefore, is a detailed excellent response that meets all aspects of the requirement leaving no ambiguity as to whether the tenderer can meet the requirement. Health & Safety statistics are significantly lower than Client expectations.
4	<b>Very Good</b> - Overall the response demonstrates that the tenderer meets all areas of the requirement and provides all of the areas of evidence requested, but contains some trivial omissions in relation to the level of detail requested in terms of either the response or the evidence. This, therefore, is a good response that meets all aspects of the requirement with only a trivial level ambiguity due the tenderers failure to provide all information at the level of detail requested. Health & Safety statistics are lower than Client expectations.
3	<b>Good</b> - Overall the response demonstrates that the tenderer meets the entire requirement and provides the areas of evidence requested, but contains some omissions in relation to the level of detail requested in terms of either the response or the evidence. This, therefore, is a good response that meets the requirement with only a minor level ambiguity due the tenderers failure to provide all information at the level of detail requested. Health & Safety statistics Health & Safety statistics are broadly in line with Client expectations.
2	<b>Acceptable</b> - Overall the response demonstrates that the tenderer meets the majority of all the areas of the requirement, but not all of the areas of evidence requested have been provided. This, therefore, is an adequate response, but with some ambiguity as to whether the tenderer can meet the requirement due to the tenderers failure to provide all of the evidence requested. Health & Safety statistics above Client expectations.
1	<b>Poor</b> – The response does not demonstrate that the tenderer meets the requirement in one or more areas. This, therefore, is a poor response with significant ambiguity as to whether the tenderer can meet the requirement due to the failure by the tenderer to show that it meets one or more areas of the requirement. Health & Safety statistics causes some concern with continuously high incident rate.
0	<b>Unacceptable</b> - The response is non-compliant with the requirements of the ITT and/or no response has been provided. Health & Safety statistics show serious concerns including but not limited to fatalities and / or enforcement notices or convictions and may result in tender disqualification.

Table 4 Scoring Model Interpretations

## 5.4 COMMERCIAL EVALUATION

The Total Tender Sum (the total of all costs provided in the costs schedule) will be evaluated for the purposes of the commercial evaluation.

Prices must be fixed and firm and not be subject to any pricing assumptions, qualifications or indexation not provided for explicitly by the Client as part of the pricing approach. All elements in the cost schedule must be costed. In the event that any prices are expressed as being Subject to any pricing assumptions, qualifications or indexation not provided for by the Client as part of the pricing approach, or where the cost schedule is incomplete, the Client may reject the full tender response at this point. The Client may also reject any tender response where the Price for the Service is



considered by the Client to be abnormally low following the relevant processes set out under the EU procurement rules.

A maximum score of 100 will be awarded to the tender response offering the lowest Tender Sum. Other tender responses will be awarded a mark by application of the following formula: (Lowest overall price / Overall price being evaluated) x 100.

#### **5.5 MODERATION & APPLICATION OF WEIGHTINGS**

An evaluation panel may be appointed for this procurement to agree and moderate scores for each award criteria. Final scores in terms of a percentage of the overall tender score will be obtained by applying the relevant weighting factors set out as part of the award criteria table above. The percentage scores for each award criteria will be amalgamated to give a percentage score out of 100.

#### **5.6 THE WINNING TENDER RESPONSE**

The winning tender response shall be the tender response scoring the highest percentage scores out of 100 when applying the above evaluation methodology.

## 6 SERVICE SPECIFICATION

### 6.1 BACKGROUND

WHL uses two online systems at the core of its site safety management practice:

- OPANS communication platform
- AIS infrastructure and operations management

The requirement for AIS was initially a requirement of the MCA under the Wave Hub ASMS but has grown from a basic third-party vessel monitoring and alarm system to an active site development and spatial planning tool, a marine coordination platform and alerting system. The following is now subscribed to by WHL under the ASMS:

The area is subject to continuous electronic monitoring of AIS equipped vessel traffic using a bespoke Automatic Identification System (AIS) online service. Access to this online resource is shared in the Wave Hub ERCoP.

This system is used to plot all WHL controlled infrastructure, manage safety clearances, issue vessel approaching and access notifications, observe planned marine operations and maintain an accessible and up to date electronic UKHO chart back-drop. The system is central to the safe and efficient management of the Wave Hub offshore test site and enables WHL staff to monitor the area on a real-time basis when required or when notifications are received. The system also conducts data logging on a continuous basis when vessels access the Wave Hub offshore test site. Analysis of logged data will also be conducted whenever an incident is observed or reported to identify the vessels involved and tracks followed (where the vessel is AIS equipped).

Accordingly, it is a WHL mandatory requirement that all vessels working on the Wave Hub site operate and keep an AIS system up to date. Of the third-party vessels operating near the site, it is noted that the smaller local fishing vessels – typically potting vessels, as well as some pleasure craft – do not always have AIS installed, and some larger fishing vessels seeking to protect fishing grounds do not operate AIS reliably.

Renewable energy devices may be required to install GNSS monitoring systems. The following is set out in the agreed ASMS:

Depending on the type of device and its configuration, operation and mooring / tethering systems, Developers may be required to install an independent Global Navigation Satellite (GNSS) Tracking System capable of reporting Device Identification and Position regularly, reliably and accurately and in real time, on each device. This requirement will need to be discussed and agreed on a case by case basis with the MCA.

The tracking systems must be monitored by the Developer, be well maintained and faulty devices must be repaired or replaced at the first safe opportunity. Tracking units shall be independently powered or contain a minimum 30 days internal back-up power.



Where any Device exceeds its pre-defined operating footprint, or ceases to communicate, alarms shall be issued to the Developer Duty Manager and the appropriate monitoring, validation and emergency response or repair plan implemented.

In the event of a device adrift emergency, the Wave Hub Duty Manager and MCA CGOC must have full access to a working web-based position monitoring system immediately so location information may be shared with third parties and broadcast for navigation safety purposes at regular intervals.

Thus, it is a requirement that the web-based site monitoring system also accommodates GNSS data streams.

## **6.2 SPECIFICATION**

The scope of work shall comprise of the operation and maintenance of an AIS (vessel) and GNSS (device) data capture and online monitoring system.

The capability and functionality of the system shall encompass the all Wave Hub offshore infrastructure and renewable energy development area plus a reasonable area of surrounding sea.

The Wave Hub monitoring system is both a safety management tool and an asset protection and alarm / notification platform. Specifically, the service provider shall provide the following:

- 1) Robust AIS data feed with coverage redundancy;
- 2) Collection and processing of Global Navigation Satellite System (GNSS) data (via FTP for devices) to ensure all assets are marked and tracked on a single system (an MCA ERCOP requirement);
- 3) Delivery of an online interface system supported by a highly resilient server / provider for ultra-reliable service;
- 4) Ability to improve, adapt and refine the system to the Client's bespoke requirements;
- 5) Ongoing use of the full capability and all necessary service support.

The web-based monitoring system interface shall offer the following capability and minimum functionality:

- 1) Online user interface for PC, Laptop or Tablet that may be accessed by at least 5 users simultaneously and with secure login access for up to 10 users;
- 2) Training on an as required basis for new and key system users;
- 3) Colour coded icons for different vessel classes and asset types to aid clear visual interpretation with a key in support;
- 4) A clear and easily interpreted visual overlay of the site showing static assets drawn as well as floating assets with AIS or GNSS feeds;
- 5) Devices, navigation marks and scientific measurement instrumentation shall be shown with a minimum half hourly reporting of position and shall be given appropriate symbols;
- 6) Simple and effective protection zone and alarm configuration management in accordance with Client requirements;

- 7) Intuitive user-drafting capability to allow safe site layout development and berth specification within the consented site boundary;
- 8) Monitoring of all AIS enabled marine traffic in the vicinity;
- 9) Collect and present GNSS data in various formats through multiple FTP servers;
- 10) Track any asset (AIS or GNSS) in an off-station incident - MCA will access as read only viewer in event of an emergency. Access is shared in the Wave Hub ERCoP;
- 11) Issue tiered alarms to multiple users via SMS and Email and issue all-clear notifications in the case of false alarms;
- 12) Highly accurate Latitude/Longitude positioning in WGS84 in degrees, minutes and at least 3 decimal places of minutes;
- 13) User distance measurement in meters to a minimum +/-0.5m accuracy;
- 14) Editable individual user configuration and alert preferences;
- 15) Definition of vessels used in connection with the operation of the site;
- 16) Inclusion of the following layers and back drops:
  - a. WGS84 Lat/Long Grid;
  - b. Google Mapping or Equivalent;
  - c. Current and maintained UKHO Admiralty Chart Raster (Admiralty Chart 1123 area coverage with all detailed charts within this zone available at the appropriate level of zoom);
  - d. Wave Hub latest survey data (subject to change as new data is collected, generally provided as a geo-tiff files):
    - i. Bathymetry;
    - ii. Side Scan Sonar;
    - iii. Seabed Features;
    - iv. Cable KP Markers;
- 17) Continuous recording and replay function. Track information shall be stored for the Contract Term and saved for access for 5 years following the Contract end date or termination. This data shall be made available to Client in an appropriate format on request to inform marine traffic reports and assessments as well as to enable replay of incidents / events. An event log of all notifiable incidents must be maintained in support of this data to aid easy recall and interrogation. Contractor shall assist in analysis of recorded data where incidents occur;
- 18) Provision of virtual AIS site marking and associated shore side infrastructure (assume an antenna may be installed on the roof of the NCI station at St Ives: <http://www.nci-stives.org/>);
- 19) Provision of AIS alerts to unauthorised vessels accessing the site (via VAB architecture);
- 20) Assistance in application to OFCOM for Virtual AIS Licence;
- 21) AIS equipped vessel track data analysis and production of traffic reports. These shall include two levels of assessment:
  - a. Local area assessment – out to 1 Nautical Mile from the site and export cable
  - b. Site assessment (inclusive of the site, navigation marks, export cable and related protection zones). Within the site assessment review of unauthorised vessel access to the safety zone should also be completed.

The comparison of findings with past traffic survey outputs is important to understand how marine traffic patterns and the associated risk profile have changed. Analysis of fishing data



and understanding changes in fishing behaviour is particularly important to the safeguarding of the asset.

Traffic surveys will be used internally for risk review purposes but may also become a publicly accessible document. It is crucial therefore that it is a professional, relevant and robust assessment and report.

For the avoidance of doubt, at the time of Contract signing, all elements above are active requirements for the Wave Hub site in Cornwall, excluding the provision of the VAB System and Services, Traffic Assessment Reporting and Data Analysis which shall be commissioned by way of Variation Order. Services for the Pembrokeshire Demonstration Zone are limited to chart coverage only and the full suite of monitoring services maybe commissioned by Variation Order at a later date.

It is recognised that software updates are required from time to time but it is requested that a minimum one week of notice is given and where possible the update date agreed with the Client on the basis that this system is critical to site safety management – particularly during marine operations.

## **7 HEALTH, SAFETY, ENVIRONMENT AND QUALITY (HSEQ)**

Health, safety and environmental protection shall be given foremost consideration in the execution of the Services and shall be promoted in a proactive and highly visible manner throughout the Contract Term.

The Contractor should plan all activities necessary to meet the requirements of this Specification using appropriate levels of Health, Safety, Environmental and Quality (HSEQ) Management.

The Contractor's activities shall comply with the requirements of the WHL Operational Management System as well as Consent requirements including the relevant provisions within the Active Safety Management System and Emergency Response Cooperation Plan agreed with the MCA.

The Contractor shall prepare specific plans dealing with HSEQ prior to any site attendance to undertake or oversee installation or commissioning work. These may comprise either a combined HSEQ plan or separate HSE and Quality plans.

The purpose of the HSEQ plan in support of work on site shall be to ensure that:

- Project personnel clearly understand their responsibilities and conduct their work to the relevant standards;
- The work complies with HSE legislation;
- Activities are risk assessed and residual risks to people, the environment and the assets are reduced to ALARP;
- Planned safe working is effectively implemented with an objective of achieving zero lost time due to accidents;
- Activities are carried out in a systematic and consistent manner;
- Project specific requirements are fully understood;
- Worksite briefings and toolbox talks are completed before each new task;
- Emergency response, welfare and first aid cover are all adequately addressed;
- The work is considerate of the environment and seeks to minimise waste and pollution;
- The work is undertaken with all due care and diligence and with the skill to be expected of a reputable contractor experienced in the types of work to be carried out under the Contract;

The quality of the work is compliant with this Contract and specification and all applicable industry standards. The Contractor is required to submit the completed HSEQ questionnaire in support of their tender.

Wave Hub Ltd is a company dedicated to delivering new renewable energy technology and as such the Contractor shall be mindful of its environmental impact and must actively seek to reduce its carbon emissions wherever practicable. Evidence of such action may be requested by Client.

## **7.1 COMPETENCY AND CO-ORDINATION OF SUBCONTRACTORS**

Contractor shall ensure the competency of all Subcontractors in relation to HSEQ matters. HSEQ competence shall be a criterion in the selection of potential Subcontractors. Contractor shall ensure that all its Subcontractors allocate adequate resources to HSEQ during the performance of the Work.

Subcontractors should be made aware that, where the Contractor fulfils the co-ordination role, individual Subcontractors are not relieved of their legal duties under H&S law.

Contractor shall ensure that any Subcontractor's policies are in alignment with its stated policies and shall take overall HSEQ responsibility for any Subcontractors engaged to perform any part of the Work.

## **7.2 QUALITY CONTROL**

Contractor shall be responsible for ensuring that the work is fully compliant with the Contract requirements. The Contractor shall be responsible for quality control of the works, including for those elements undertaken by its Subcontractors, and includes all relevant engineering, inspection, testing, dimensional control and certification documentation.

If it becomes apparent that Contractor or Subcontractor quality control is either inadequate or not being implemented, Client reserves the right to request Contractor to revise working practices or increase resources as necessary, at no additional cost to Client.

## 8 SUPPORTING DOCUMENTS

- 1) Location Schedule:
  - a. Wave Hub Asset Location Safety Database 01-11-2016
- 2) NRA and Traffic Assessments:
  - a. ES Appendix L - Navigation Risk Assessment - June 2006
  - b. Anatec Navigation Risk Review - Jan 2009
  - c. 201005\_shipping review\_Anatec
  - d. 201112\_shipping review\_Anatec
  - e. 201201\_shipping review\_Anatec
  - f. 201303\_shipping review\_Anatec
- 3) Site Plans:
  - a. OM-287-DR-026-A9\_Wave Hub Location Plan
  - b. OM-287-DR-027-A6-Wave Hub Site Plan
  - c. OM-287-DR-024-A4\_Developer System Schematic
  - d. DWG-0198-J64572-05 Wave Hub Export Cable KP Chart Rev A1
  - e. DWG-0289-J64604 WaveHub Tails As Built - KP Chart Rev A5
  - f. Kingfisher Awareness Chart - Cable Route April 2015
  - g. Wave Hub Schematic Feb 2017
- 4) Safety Management Information:
  - a. MOR-021-Roles and Responsibilities Overview
- 5) Contract Administration:
  - a. FORM-M001 Contractor HSEQ Questionnaire
  - b. FORM-M005 Contract Variation Forms
  - c. Proposed Form of Contract



## 9 PAYMENT AND INVOICING

Invoices must be actioned in accordance with the terms of the Contract and shall be emailed in PDF format to both:

- Head of Business Services: [helen.wilson-prowse@wavehub.co.uk](mailto:helen.wilson-prowse@wavehub.co.uk)
- Head of Engineering and Operations: [julius.besterman@wavehub.co.uk](mailto:julius.besterman@wavehub.co.uk)

The full VAT invoice must include the following itemisation:

- Value of core Services to be delivered and associated PO number
- Value of each additional agreed Variation Order and associated PO numbers



## 10 CONTACT DETAILS

<b>The Client:</b>	Wave Hub Limited (WHL)
<b>Business Address:</b>	Wave Hub Limited Chi Gallos Hayle Marine Renewables Business Park North Quay Hayle Cornwall TR27 4DD
<b>Contract Manager:</b>	Julius Besterman, Head of Engineering & Operations 01736 800 291 07918 630 852 <a href="mailto:julius.besterman@wavehub.co.uk">julius.besterman@wavehub.co.uk</a>