



Wave-Tricity Hull Construction Study

Invitation To Tender (ITT)

Marine-I 181

Background/Introduction

Wave-Tricity Ltd intends to construct a full-scale concrete hybrid generation platform, which will be a large and complex build. The platform hull will be a multi-decked ship-shaped barge with superstructure circa 100m x 25m x 10m and will be constructed from marine grade concrete.

There are several construction methodologies available to build this type of structure, each with varying advantages and disadvantages with respect to the design of the platform hull. The requirement is to conduct a construction feasibility study to provide the Wave-Tricity Ltd design team with a recommended construction methodology prior to starting detailed engineering. This will minimise design risk and cost during the next phase of works and allow for early engagement with potential fabrication sites for the platform

The purchase of this is part of a grant funded application process and therefore procurement will be subject to grant approval of the project as a whole and the contract will be awarded to the lowest compliant bid.

1 Project Specifications

In undertaking this study, the following areas shall be investigated and evaluated in terms of technical advantages and disadvantages of a concrete hull with an active life of 30 years in salt or fresh water. An associated high-level qualitative cost analysis shall also be presented, in order to support the findings and provide final recommendations of a suitable construction strategy:

- 1.a A summary and background information of each platform hull construction methodology and materials shall be presented to include:
 - 1.a.i Reinforced concrete (cast in situ or precast)
 - 1.a.ii In-situ monolithic casting (slip form)
 - 1.a.iii In-situ casting using precast elements (slab, honeycomb structure)
 - 1.a.iv Pre-stressed concrete
 - 1.a.v Post-tension concrete
- 1.b Identification of the possible construction locations and facilities:
 - 1.b.i Any specific quayside water-depths to ensure sufficient clearance of the build at various stages of construction and load-out
 - 1.b.ii Review use of assembly areas - precast assembly area for modular build and full assembly

- 1.b.iii How precast elements could be used and limiting factors, considering transportation (road, ship etc.) and platform requirements for modular build
- 1.b.iv Review craneage - evaluate maximum capacity of cranes required at various boom reach with an estimate of largest precast frame, module
- 1.b.v Climactic constraints, advantages and disadvantages due to global location of build
- 1.c The following main build concepts shall be investigated and reported
Construction build within a dry-dock:
 - 1.c.i Calculation of minimum number of platform hull elements (horizontal position) to determine required buoyancy to float-out the platform hull prior to flooding dock and tow platform hull to quayside to complete build and fit-out
 - 1.c.ii Associated costs with occupying dry-dock for duration of build
 - 1.c.iii Discuss opportunities of flooding dock, whilst building platform, evaluate consequences of disruption of build, wash down event
 - 1.c.iv Evaluate slip-forming methodology of constructing the platform in a vertical position in the dry-dock
 - 1.c.v Evaluate methods on over-turning platform hull to its longitudinal position (if feasible)
 Floating Barge construction:
 - 1.c.vi Build platform on top of barge(s)
 - 1.c.vii Capital expenditure of purchasing barge(s)

PLEASE COMPLETE THE COMPLIANCY MATRIX AT ANNEX 1 as part of your tender response

2 ITT Timetable

The anticipated timetable for submission of the tender and commission milestones are set out below:

Activity	Date
Date ITT available on Contracts Finder	24 May 2019

Last date for raising queries	5 June 2019
Last date for clarifications to queries	7 June 2019
Deadline to return ITT	14 June 2019
Evaluation of ITT	17 June 2019
Award of Contract	This is subject to successfully obtaining grant funding and will normally be no later than 90 days from contract evaluation

3 Conflicts of Interest

Please provide a statement with regards to a conflict of interest for this procurement through the provision of either: -

A Declaration that to your knowledge there is no conflict of interest between your company and Wave-Tricity that is likely to influence the outcome of this procurement either directly or indirectly through financial, economic or other personal interest which might be perceived to compromise their impartiality and independence in the contexts of this procurement procedure.

Or

A Declaration that there is a likely conflict of interest between your company and Wave-Tricity that is likely to influence the outcome of this procurement either directly or indirectly through financial, economic or other personal interest which might be perceived to compromise their impartiality and independence in the contexts of this procurement procedure, please provide details of this connection.

This will permit Wave-Tricity, that in the event of a conflict of interest, appropriate steps are taken to ensure that the evaluation of any submission will be undertaken by an independent and impartial party.

Exclusion

Wave-Tricity shall exclude applicants from participation in this procurement procedure where they have established or are otherwise aware that the applicant, to include administrative, management or supervisory staff that have powers of representation, decision or control of the applicants company, has been the subject of a conviction by final judgment of one of the following reasons:-

- Participation in a criminal organisation
- Corruption

Fraud

Terrorist offences or offences linked to terrorist activities

Money laundering or terrorist financing

Child labour and other forms of trafficking in human beings

4 Consortium or sub-contracting

Where a consortium or sub-contracting approach is proposed, all information requested should be given in respect of the proposed prime contractor or consortium leader. Relevant information should also be provided in respect of consortium members or sub-contractors who will play a significant (greater than 25%) role in the delivery of the services under any ensuing Contract.

5 Tender Application Requirements

Please provide paper copies of your application which should include:

1. Confirmation that you the supplier are able to meet the requirements outlined in the brief above.
2. Dated your response, used our company's full postal address (albeit your submission might be by email) and included the Reference: Wave-Tricity Hull construction study Marine-I 181.
3. Details of who to contact in your company in relation to this tender
4. Company registration Number and VAT number (if appropriate)
5. Completed Compliancy matrix (Annex 1) with the total cost of providing the goods/services requested in section 2

6 Tender Scoring Criteria

The tender will be scored only on their compliance to the specification set out in section 2 and awarded to the lowest compliant tender.

7 Tender Returns

Tenders may be returned by email or post, or by delivery in person.

Latest date to be received: 14 June 2019

Latest time to be returned: 12.00 pm



1. If submitting by **email**, tenders should be sent electronically to Mark.Sullivan@Wave-Tricity.com with the following message **clearly noted in the Subject box**; 'Wave-Tricity Hull Construction Marine-I 181'

Tenderers are advised to request an acknowledgement of receipt when submitting by email.

If submitting by post or in person, the Tender must be enclosed in a sealed envelope, only marked as follows:-

Tender - Strictly Confidential – Wave-Tricity Hull Construction Study

Contract Reference Number: MARINE-I 181.

Addressed to:

Wave-Tricity
1 Eddystone House,
Eddystone Road,
Wadebridge
PL27 7AL

The envelope should not give any indication to the Tenderer's identity. Marking by the carrier will not disqualify the tender.

If delivery **by hand** please obtain an official Receipt at point of delivery

8 Clarification

There will not be any negotiations of any of the substantive terms of the Tender Documents. Only clarification queries will be answered. Any clarification queries arising from the Tender Documents which may have a bearing on the offer should be raised as soon as possible in writing. The deadline for clarification questions is 5 June 2019. All e-mailed queries should be sent to:-

Name: Mark Sullivan

E-mail: Mark.Sullivan@Wave-Tricity.com

No representation by way of explanation or otherwise to persons or corporations tendering or desirous of tendering as to the meaning of the tender, Contract or other Tender Documents or as to any other matter or thing to be done under the proposed contract shall bind us unless such

representation is in writing and duly signed by a Director of Wave-Tricity. All such correspondence shall be returned with the Tender Documents and shall form part of the Contract.

Tenderers must provide a single point of contact in their organisation for all contact between the Tenderer and Wave-Tricity

Responses to any queries will be shared through Contracts Finder website.

9 Disclaimer

The issue of this documentation does not commit Wave-Tricity to award any contract pursuant to the bid process or enter into a contractual relationship with any provider of the service. Nothing in the documentation or in any other communications made between Wave-Tricity or its agents and any other party, or any part thereof, shall be taken as constituting a contract, agreement or representation between Wave-Tricity and any other party (save for a formal award of contract made in writing by or on behalf of Wave-Tricity).

Bidders must obtain for themselves, at their own responsibility and expense, all information necessary for the preparation of their tender responses. Information supplied to bidders by Wave-Tricity or any information contained in Wave-Tricity publications are supplied only for general guidance in the preparation of the tender response. Bidders must satisfy themselves by their own investigations as to the accuracy of any such information and no responsibility is accepted by Wave-Tricity for any loss or damage of whatever kind and howsoever caused arising from the use by bidders of such information.

Bidders shall be responsible for their own costs and expenses in connection with or arising out of their response. Wave-Tricity reserves the right to vary or change all or any part of the basis of the procedures for the procurement process at any time or not to proceed with the proposed procurement at all.

Cancellation of the procurement process (at any time) under any circumstances will not render Wave-Tricity liable for any costs or expenses incurred by bidders during the procurement process.