



INVITATION TO TENDER

DESKTOP, NETWORK, SERVER SUPPORT & HARDWARE MAINTENANCE FOR WAVE HUB LIMITED

Ref: WH/2016/TEN/03

TABLE OF CONTENTS

1.0	BACKGROUND	3
1.1	Wave Hub Ltd	3
1.2	Wave Hub	3
2.	SCOPE OF CONTRACT	4
2.1	Introduction	4
2.2	Supported Services	6
2.3	Scope of Service	7
2.4	Service Detail	10
2.5	Contract Term	10
3.0	INSTRUCTIONS TO TENDERERS	11
3.1	Introduction	11
3.2	Clarifications	11
3.3	Tender Amendment	11
3.4	Withdrawal	11
3.5	Conditions for Tendering	11
3.6	Information to be Returned with Tender	11
4.0	EVALUATION	12
4.1	Evaluation Criteria	12
4.2	Award of Contract	13

APPENDICES:

APPENDIX A	FORM OF TENDER
APPENDIX B	DRAFT CONTRACT

1.0 BACKGROUND

1.1 Wave Hub Limited

Wave Hub Limited (WHL) is a private company limited by shares and a Research Organisation. It is the operating company of the Wave Hub testing facility in Cornwall and the third party manager for the North Devon and Pembrokeshire demonstration zones.

WHL's principle objectives are to:

- Build a world leading and financially sustainable offshore renewable energy business.
- Ensure safe and efficient operations at Wave Hub that meet customers' needs.
- Progress technology development by enabling connection and testing of large scale offshore renewable energy installations.
- Drive research and innovation to help overcome the final hurdles to full commercialisation.

WHL has a small non-executive Board currently comprising representatives of our shareholder, the Managing Director and other members who are appointed to bring expertise to the company. The WHL operations team comprises five people who are all office based but also regularly work remotely. IT communication between the office and nearby electrical substation is also an important function.

1.2 Wave Hub

Wave Hub is the world's largest and most technologically advanced site for the testing and development of wave energy devices. It allows developers the opportunity to test arrays of wave energy devices over several years in a realistic, fully monitored marine environment.

The Wave Hub infrastructure comprises an onshore substation in Hayle, a terminal and distribution hub on the seabed 10 nautical miles off the north coast of Cornwall and a 25 km armoured subsea power cable. This infrastructure connects an 8 sq km consented area of sea to the local grid network and the system is designed to operate at either 33kV or 11kV.

The Wave Hub seabed lease from the Crown Estate is for 25 years and the area is subdivided into four berths comprising approximately 1 km x 2 km which are sublet to developers. Each berth is capable of accommodating a generating capacity of up to 12MW and power metering is performed on the devices and at the substation. The control and monitoring of wave energy devices is performed remotely via a high speed broadband connection from the substation using data transmitted via fibre optic cables with the subsea

power cable. The device developers are responsible for their devices, in terms of installation and ongoing operation and maintenance of devices.

A schematic of the Wave Hub system is presented in Figure 1 below.

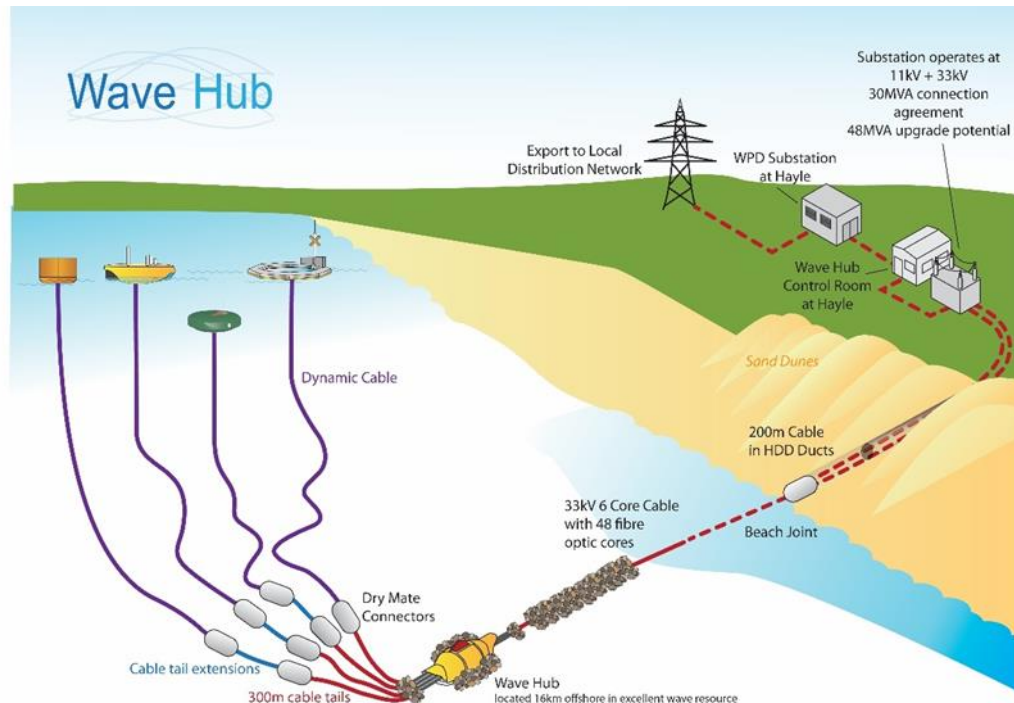


Figure 1

2.0 SCOPE OF CONTRACT

2.1 Introduction

WHL is looking for a suitably qualified and experienced company to provide network, desktop and server support and hardware maintenance for the systems and hardware outlined below.

WHL has its principal office in the Marine Renewables Business Park, Hayle, Cornwall. In addition to this, there is a managed substation a short walk from the main office.

In the substation there is a dual bonded Fibre to the Cabinet (FTTC) solution which provides resilient high performance managed Internet access and also, a secondary business grade FTTC which provides a backup Internet link and substation analogue telephony.

Within the substation there are also separate switched networks for the support of wave energy devices deployed offshore and connected to the Wave Hub subsea power cable.

The bonded links are utilised for Internet Web browsing, Voice over IP (VoIP) telephony, server and client backups to cloud storage, Virtual Private Network (VPN) access for the monitoring of substation systems and CCTV. The bonded links are also a highly scalable solution enabling WHL to grow, if required, to accommodate the demands of third party hosting within the substation.

Between the substation and the new offices there is a high speed 10 GB fibre-optic link with a 1 GB fibre-optic backup. The fibre-optic links allow connectivity from the offices to all systems which are hosted in the substation including primary Internet access.

Local Area Networks (LANs) in both the offices and the substation are based on enterprise grade switching with Internet access and LAN segregation achieved using two high availability Unified Threat Management (UTM) firewalls. The UTM firewalls provide a Web content filtering solution for Wave Hub staff as well as guests. This provides Web protection against malware, phishing and other Web 2.0 threats.

Secure corporate and guest WiFi networks in the Chi Gallos offices and the substation are built on a wireless access point (AP) solution with cloud-based management. In the Chi Gallos office there is an additional UTM firewall and ADSL Internet connectivity. This serves to provide remote LAN access to serial console servers for engineer diagnostics in the event of a network systems failure.

The additional ADSL analogue line is also used for connectivity of the WHL FAX machine. Inbound faxes are received via a cloud hosted FAX to email service.

The offices use an Internet hosted VoIP telephony system which provides the same call handling features as much larger PBX systems without the need for expensive on-site equipment. All call minutes carried across this VoIP system are also carbon neutral.

Remote access to substation and CCTV systems have been provisioned through the use of Secure Socket Layer (SSL) VPNs to allow users to access in-office systems from other locations with an Internet connection over a highly secure, encrypted link.

Cloud based office applications (Word, Excel, PowerPoint and Outlook) have been installed directly from Microsoft's Office 365. This provides the latest version of Office applications and a centrally managed email environment which can scale as the business grows and is accessible, securely, from anywhere that can provide a connection to the Internet.

A solution utilising separate business cloud storage is used for team collaboration and sharing files with third parties. This has been configured to follow secure user permissions for directory and file structure.

2.2 Supported Services

The service has been broken down into the management of a number of Wave Hub systems:

Network support

- Management of the bonded FTTC & ADSL links
- PSTN analogue lines
- LAN Infrastructure and switching for the office and substation systems
- Substation Wave Energy Creator (WEC) networks
- UTM firewalls and routers
- Wireless networks
- Wave Hub user SSL VPN connectivity
- Voice over IP telephony infrastructure
- Network systems upgrade
- Configuration management
- Network support documentation
- Two-factor authentication service
- Third party network supplier liaison including hardware and software maintenance support contracts

Server and Desktop support

- Azure Active Directory including user account management
- File and print sharing
- Remote Desktop Connectivity
- Windows Server Updates
- Antivirus and mobile device management
- Server and desktop support documentation
- Monitoring of system alerts
- Third party supplier liaison where required to support the above systems
- NAS backups
- Windows Server backups
- Windows 10 desktops and tablet
- Substation systems management

Hosted services

- Microsoft Office 365
- Secure cloud file storage and third party file sharing
- Cloud server and client backups
- Voice over IP systems management

2.3 Scope of Service

The day to day running of the WHL's Internet and Local Area Networks (LAN) as well as their server and desktop systems.

Internet Services

- Manage fault diagnosis and fault reporting with all third party supplier
- Manage all major changes to the configuration of Internet access
- Manage support documentation

Local Area Network (Wired and Wireless)

- Manage, test, document, upgrade and support the LAN equipment
- Manage the maintenance and development of the LAN, in accordance with Wave Hub's growing business needs.
- Undertake capacity planning of the LAN to accommodate changing traffic volumes. The support provider shall inform the customer of any current or potential capacity issues.
- Manage all major changes to the configuration of the LAN
- Manage support documentation

Local On-site Voice & Data patching (PC's, IP Telephones & Printers)

This is the responsibility of WHL under the direction of the support provider.

Changes to firewall, router, switch and third party Internet connections are the sole responsibility of the support provider including the re-patching of critical infrastructure.

Windows Server 2012

- Diagnose and resolve faults
- Manage user / device account maintenance
- Perform Windows Server patching as per Microsoft release schedule
- Monitor event logs for major errors
- Check monitoring platform for errors
- Monitor resource usage
- System patching

Network Attached Storage (NAS)

- Check NAS dashboard for errors
- Monitor resource usage

Backups

- Manage Windows Server backups
- Manage backups to online cloud storage
- Perform file/full server restores where required
- Review status to ensure successful backups are completed

Windows 10 PC's

- Diagnose and resolve faults
- Perform Windows 10 patching as required

- Restore base operating system builds from prebuilt image
- Install basic software including Microsoft Office 365 and Anti-virus

Server Support Documentation

- Windows Server 2012 build document
- NAS configuration
- Software licensing
- Server IP Address management
- Password policy and management

Disaster Recovery

These events include the damage or failure of hardware, telecommunications equipment and operating systems software due to:

- Fire or flood
- Building infrastructure damage
- Equipment theft
- Environmental factors (overheating or cooling)
- Extended loss of power

Support should be provided to carry out the necessary remediation work in order to resolve the subsequent IT issues.

Network Hardware Maintenance

Provision of ongoing hardware maintenance contracts and management of renewal requirements for items listed in the table below:

Manufacturer / Supplier	Product	Site	Notes
Cisco	WS-C2960-24LT-L	Substation	Spares - no maintenance required
Cisco	ASA5505-SEC-BUN-K9	Substation	Spares - no maintenance required
Jacarta	interSector	Substation	Spares - no maintenance required
Jacarta	interSector	Office	Spares - no maintenance required
Cisco	WS-C2960X-24PD-L	Substation	
Cisco	WS-C2960X-24PS-L	Substation	
Netgear	GS108T-200UKS	Substation	Netgear lifetime warranty
Draytek	Vigor 2860	Substation	Covered by a 3 Year warranty
Cyberoam	CR50iNG (UTM1)	Substation	SVS
Cyberoam	CR50iNG (UTM2)	Substation	SVS
Aerohive	AP130 (WH-SBS-AP4)	Substation	HMOL
Cisco	WAP121	Substation	Covered by Cisco limited lifetime warranty
HP	E2510-24G Switch (J9279A)	Substation	
HP	E2510-24G Switch (J9279A)	Substation	
HP	E2510-24G Switch (J9279A)	Substation	
HP	E2510-24G Switch (J9279A)	Substation	
DELL	Dell PowerEdge R220	Substation	Dell 3 Year next business day onsite warranty
QNAP	QNAP TS-469U-RP	Substation	Covered by 2 Year manufacturer's warranty
Sentinel	RSM-8R8	Substation	Covered by 5 Year warranty
APC	SMT3000RMI2U	Substation	
APC	SUA2200RMI2U	Substation	
APC	SURTD3000RMXLI	Substation	
APC	SUA3000RMXLI3U	Substation	
Cisco	WS-C2960X-24PD-L	Office	
Cisco	WS-C2960X-24PS-L	Office	
Aerohive	AP130 (WH-CHI-AP1)	Office	HMOL
Aerohive	AP130 (WH-CHI-AP2)	Office	HMOL
Aerohive	AP130 (WH-CHI-AP3)	Office	HMOL
Cyberoam	CR15iNG (UTM3)	Office	SVS
Draytek	Vigor 130	Office	covered by a 3 Year warranty
Sentinel	RSM-8R8	Office	covered by a 5 Year warranty
APC	SMT1500I	Office	

Exclusions

The following services would not be covered and rates should be provided:

- Major upgrades to network and telephony systems, Windows Server or NAS appliance. This includes any change taking longer than 4 hours to complete
- Major system changes for support of Wave Hub's customers including equipment installation, bespoke remote access configuration and system monitoring requirements
- Provision, configuration and installation of new user equipment
- Ad-hoc project work and/or out of hours work

2.4 Service Detail

Service Hours

General support, including incidents, change control and service management, will be provided to WHL during standard UK business hours Monday to Friday from 08:00hrs to 18.00hrs excluding public holidays.

Support may also be required outside of these hours depending on business activity.

System Availability

Every effort should be made to ensure systems are available during the above service hours and reasonable notice should be given of any proposed downtime including details of date, time, duration and of all systems affected to Wave Hub Ltd.

A change control should be raised for approval by the relevant parties and the business will be informed of the impact to services.

When it is necessary to make an emergency change, such as restoring service in the event of a system failure, Wave Hub Ltd should be apprised at every possible opportunity.

2.5 Contract Term

The contract will commence on 24 September 2016 and will run for a three year period to 23 September 2019 with the potential for a 12 month extension. Please note that these dates are subject to confirmation and may change.

3.0 INSTRUCTIONS TO TENDERERS

3.1 Introduction

Failure to comply with any of these instructions may lead to tenders being rejected.

3.2 Clarifications

If there is any query regarding the meaning of the Tender Document the Tenderer shall set out such queries in writing for clarification and address them to Helen Wilson-Prowse, Wave Hub Limited, Chi Gallos, Hayle Marine Renewables Business Park, North Quay, Hayle, Cornwall TR27 4DD. Requests for clarification shall be submitted in writing, in sufficient time to allow a response and at least two working days before the final date for submission of Tenders. Clarification emails should be sent to clarifications@wavehub.co.uk with the tender reference clearly stated in the subject line.

3.3 Tender Amendment

During the tender period Wave Hub Limited may issue Tender Amendments to clarify, modify or add to the Tender Document. A copy of each Tender Amendment will be issued to every Tenderer and shall become part of the Tender Document. No addition or alteration shall be made to the Tender Document unless it is the subject of a Tender Amendment.

3.4 Withdrawal

If a Tenderer decides that they are unable to submit a Tender they shall immediately notify Wave Hub Limited. The Tenderer shall then return the Tender Document to Wave Hub Limited, including any copies. The Tenderer shall state in writing the reasons for withdrawal.

3.5 Conditions for Tendering

Wave Hub Limited does not bind itself to accept the lowest or any Tender, nor shall Wave Hub Limited be liable for any expenses incurred by the Tenderer in preparation of the Tender. Tender qualifications are to be avoided by prior clarification of requirements or interpretation with Wave Hub Limited. A qualified Tender may be rejected.

3.6 Information to be Returned with Tender

The following information is to be returned in the order specified in a single hard copy along with one electronic copy on CD:

- Project Organisation setting out the proposed team along with details of any sub consultants to be appointed.
- Experience of the company in the delivery of network, desktop & server support services with a particular emphasis on small limited companies, public sector bodies and research organisations.
- List of key personnel and CV's for the proposed Client Lead and day to day contact that you are proposing to deliver the service. The CV's should show how the proposed individuals have the necessary skills and expertise to meet the requirements of this project.
- A detailed method statement setting out as a minimum your approach to managing this commission.

Tenders should be returned to: Wave Hub Limited, Chi Gallos, Hayle Marine Renewables Business Park, North Quay, Hayle, Cornwall TR27 4DD. quoting Tender Number WHL/2016TEN/03 by noon on the 5 August 2016. Tenders should not bear any identification of the sender and should be marked 'Tender – Do Not Open'. Tenders received after the time stated for return will not be considered.

4.0 EVALUATION

4.1 Evaluation Criteria

Submissions will be assessed based upon the most economically advantageous tender. There will be a quality/price split of 50/50. The following assessment criteria will be applied to the submissions:

Quality – 50 points

- | | |
|-----------------------------|----|
| • Project organisation | 5 |
| • Company experience | 20 |
| • Team composition/roles | 10 |
| – Client Lead | 15 |
| – Others | 5 |
| • Detailed method statement | 15 |

Price – 50 points

- | | |
|---|----|
| • Fixed price offer | 35 |
| • Hourly rate | 10 |
| • Total annual hardware maintenance costs | 5 |

This is the Tendered rates from the Form of Tender. The number of points will be awarded such that the lowest Tenderer for the project receives 50 points, others will receive points based on their percentage above the lowest tender.

Tenderers are required to submit a fixed fee quotation to provide the annual desktop, network & server support outlined above.

Tenderers are also required to submit fixed hourly rates for work listed in the exclusions section.

Tenderers should also set out the total annual hardware maintenance cost for the items listed in the table in section 2.3.

These rates should be fixed for the three year term of the contract.

From this assessment a shortlist will be established. If required, interviews for shortlisted tenderers may be held on 23 August 2016. If called for interview, tenderers will be expected to present their organisation, experience, team and approach to this commission.

4.2 Award of Contract

If and when it is decided to award a contract, a written notification will be sent to each of the Tenderers advising of our decision on 26 August 2016.

A draft contract is appended to this Invitation to Tender.

The provider will be responsible to the Managing Director and the contract will be managed by the Head of Operations & Business Services.