



# **Control Systems**

## **EXTERNAL EXPERTS TENDER**

### **Scope of Requirements and Tender Guidance Notes**

**Tender Opens: 10<sup>th</sup> April 2017**

**Deadline for seeking clarifications through PCS: 1200 (UK BST) 25<sup>th</sup> May 2017**

**Deadline for applications through PCS: 1200 (UK BST) 31<sup>st</sup> May 2017**

**Please read this Guidance document  
before completing the Bidder Response Form**

# SCOPE OF REQUIREMENTS

## BACKGROUND TO WAVE ENERGY SCOTLAND (WES)

Wave Energy Scotland (WES) is a wholly owned subsidiary of Highlands and Islands Enterprise (HIE) – funded by the Scottish Government – and is taking an innovative approach to supporting the commercialisation of the wave energy sector. What makes WES unique is its long-term commitment to the sector: WES is awarding contracts for innovative technology development activities that focus on proving technology and engineering quality and will support these activities until the technical and commercial risks are low enough for the private sector to re-enter the sector. Please go to [www.waveenergyscotland.co.uk](http://www.waveenergyscotland.co.uk) for further information on WES.

WES is issuing calls for proposals for wave energy technology development projects in areas that have been prioritised as requiring the most development and/or having the most impact on the future cost of energy. These areas are selected by WES via stakeholder consultation, including the WES Advisory Group: a body with expertise drawn from the industrial, academic, investment and insurance communities. Interested parties will be able to bid in an open competitive process for the award of a contract, possibly providing up to 100% of the costs of their technology development projects.

WES is using pre-commercial procurement (PCP) for its calls which means that successful applicants will receive a contract for research and development services and not a grant. This means that successful applicants will have a higher duty to WES than is normal in grant-funded programmes, which is outlined in this guidance.

It is likely that technology transfer from other sectors such as automotive, offshore wind, mining, aerospace, defence, robotics, maritime and oil & gas will be invaluable. Technology transfer from these sectors may have the opportunity to stimulate step changes in technology development in the wave sector via lower capital costs, and improved efficiency or reliability at the sub-system or device level.

The WES approach recognises the significant value that has accrued to Scotland in the development of wave technology to date, and the large global market that can be developed through further technological innovation. WES therefore seeks to retain the intellectual property and know-how from device and technology development in Scotland for future benefit.

WES has adopted a thorough stage-gate technology development process to ensure early stage concepts are supported and evaluated to allow subsequent development work to be undertaken at scale, efficiently and robustly.

## WAVE ENERGY SCOTLAND OBJECTIVES

Wave Energy Scotland recognises the significant value that has accrued to Scotland in the development of wave technology to date, and the large global market that can be developed through further technological innovation. Building upon this, the objectives are to:

- Seek to retain the intellectual property and know-how from device development in Scotland for future benefit;
- Enable Scotland's indigenous technologies to reach commercial readiness in the most efficient and effective manner, and in a way that allows the public sector to exit in due course;
- Ensure that the learning gained from support for wave device development and deployment to date, in particular the learning from Scotland's leading wave technologies, is retained and used to benefit the wave energy industry;
- Avoid duplication in funding, encourage collaboration between companies and research institutes and foster greater standardisation across the industry;
- Ensure value for money from public sector investment; and promote greater confidence in the technical performance of wave energy systems in order to encourage the return of private investment.

## CONTROL SYSTEMS COMPETITION

Wave Energy Scotland's fourth call, launched on 5<sup>th</sup> April 2017, is for Feasibility Studies on Control Systems for Wave Energy Converters (WECs), including detailed definition of follow-up Design and Development Project proposals.

The call will take the form of a three stage programme. Applications are invited to Stage 1 and successful projects have the opportunity to progress through Stage Gates to Stage 2 and 3 and increased funding values.

WES expects to award up to 12 contracts for Stage 1 projects.

The overall objective of the Control Systems programme is to design, develop and demonstrate advanced control systems for WECs and sub-systems which will deliver improvements in performance, affordability, survivability and reliability along with benefits in other WES Target Outcome Metrics.

Sophisticated control systems could be a key enabler to the development of economically viable WEC technology. While the control system and associated hardware themselves represent a relatively small proportion of CAPEX, their influence could enable significant benefits to be realised in many, if not all of the WES Target Outcome Metric areas, thereby delivering necessary reductions in Levelised Cost of Energy.

Stage 1 projects will assess the feasibility of proposed control methodologies, Stage 2 will design and develop the control system and Stage 3 will deliver physical demonstration. The programme is designed to accommodate the development and demonstration of both advanced control methodologies which are applicable to existing technologies (e.g. specific technologies being developed in the WES PTO and NWEK programmes or wider WEC/PTO types), and innovative or novel control methodologies which enable development of a completely new approach to wave energy conversion. As such, the programme timescales are designed so that Stage 3 Control Systems projects can choose to engage with hardware demonstration activities in the advanced stages of the NWEK and PTO programmes, or use hardware-in-the-loop rig test equipment appropriate to the control system and its applications.

The following table shows the key dates for the Control Systems call, for which the external experts are sought. Evaluation of the project applications will take place following the Tender Deadline. Key dates for the assessors are shown in Table 2.

**Table 1 Control Systems Call - Key Dates**

	Description	Dates (2017)
1	Contract Notice published	5 <sup>th</sup> April
2	Information Webinar	13 <sup>th</sup> April
3	Brokerage Event	12 <sup>th</sup> May
4	Last date for applicants to request clarification (through PCS)	25 <sup>th</sup> May
5	Last clarifications issued by WES	30 <sup>th</sup> May
6	Tender Deadline	12 <sup>th</sup> June
7	Applicants' response to Assessors' clarifications (if required) completed by email by:	23 <sup>rd</sup> August
8	Contract Award	26 <sup>th</sup> October

Further details of the Control Systems Call are contained in the Call Guidance document given as additional information for this external expert tender. It is recommended that all Bidders read and understand the Call Guidance document prior to submitting a tender response to act as an external expert for this call.

## BACKGROUND TO THIS TENDER

In order for Wave Energy Scotland to ensure projects with the most promise are selected for support, independent external experts may be called upon to assist with carrying out assessment of call applications and to complement the WES team during decision making processes.

Each application to the call will require to be evaluated by a panel of individuals with the relevant technical skills and experience, to determine the projects which merit support.

WES is therefore seeking a number of individuals to support the evaluation process for the current call only with the requirements detailed in the section below.

## SCOPE OF SERVICES

To ensure adequate technical expertise is available during the assessment of applications to the call, WES wishes to engage with a number of suitably qualified and experienced individuals who meet the requirements set out in the section 'EXPERTISE SOUGHT' who can provide independent, impartial expert advice.

The assessors will be required to read and independently evaluate a number of applications, covering both technical and commercial elements, following the guidance provided by WES and HIE. Written and verbal feedback/analysis of applications will be provided to WES/HIE following completion of the evaluation period. Attendance will be required at evaluation meeting(s) in Inverness, where the applications will be discussed.

Individuals appointed to act as assessors must be able to demonstrate relevant and up to date technical knowledge, skills and experience, specifically relating to the topic being covered by the Call.

The individuals selected to act as assessors will be required to participate in a meeting in advance of evaluating any applications. This meeting will be online to ensure that all assessors understand the requirement of the Call, the assessment process, and provide an opportunity to ask questions prior to receiving the applications for review.

Key dates for the assessment process are shown below but it should be noted that these dates are indicative and may change e.g. depending on the number of applications received for the call.

Meetings will usually be from 9am to 5pm, with lunch provided.

**Table 2 Indicative Key Dates for Assessors**

Description	Location	No. of Days	Dates (2017)
Initial Online Meeting	Remote	0.5	19 <sup>th</sup> July
Application Evaluation Period	Remote	4.5	20 <sup>th</sup> July – 7 <sup>th</sup> August (inclusive)
Moderation Meetings	Inverness	3	16 <sup>th</sup> August – 18 <sup>th</sup> August (inclusive)
Clarification Meetings (if required)	Remote	2	21 <sup>st</sup> August – 25 <sup>th</sup> August

Expected unavailability for these key dates must be indicated to WES in the Bidder Response Form.

It is possible that additional hours/days may be required due to circumstances outwith WES's control, and an hourly rate is required to be given in the Pricing Pro Forma for additional work. However, this is expected to be minimal and would be agreed in advance with WES.

## EXPERTISE SOUGHT

External experts with experience in one or more of the following specialisms are sought to submit a bid to act as an assessor for the Call.

- **Control Systems Specialist– Academic**  
Have significant academic/research experience in applied control methodologies relevant to dynamic motion control
- **Control Systems Specialist – Industrial**  
Have significant industrial experience in development of dynamic motion control systems
- **Innovation and Strategy Specialist**  
Have experience and a proven track record of identifying promising innovations at concept stage, and/or the management of research and development projects.
- **Wave Energy Specialists**  
Have extensive experience in the wave energy sector, in either academia or industry, ideally with experience of utilising optimisation and control to optimise the Levelised Cost of Energy of wave energy technology

In addition all Bidders, irrespective of specialism selected, should be able to demonstrate that the proposed individual has:

- the necessary skills and experience to carry out the assessment of applications to this call which may cover the application of control to optimise the power capture performance, availability, affordability or survivability of a wave energy converter
- the ability to analyse affordability claims
- experience within the wave energy, or related, sector.

While not essential, direct experience in the wave energy sector is preferable.

Bidders should note that this requirement is for individuals, and therefore entities wishing to put forward a number of individuals must submit a separate Bidder Response Form for each named individual.

Where individuals feel that they have relevant skills and expertise to be considered an expert in more than one specialism, Question C)1 of the Bidder Response Form can be used to rank their specialisms in order of preference. The maximum number of specialisms which can be awarded to the same individual is one. Evidence to support the selection of a specialism should be provided in Question C)2

## CONFIDENTIALITY AND NON-DISCLOSURE UNDERTAKING

As for any tender exercise it is essential that members of an assessment panel do not have a conflict of interest which would prevent them from making a fair and objective assessment of the applications for this call.

Therefore, as individuals will gain access to information of a confidential nature (including prior to contracts being in place) WES are putting in place robust processes to ensure confidentiality is maintained with all individuals applying to be an assessor being required to sign and return a Confidentiality and Non-Disclosure Undertaking.

Please note this must be signed by the proposed individual and not an employer or other third party. It must also be stressed that any information provided to an individual by WES must not be divulged to any other party (including employers).

The accepted method of delivery for the Confidentiality and Non-Disclosure Undertaking will be for the signed document to be scanned and uploaded to the Public Contracts Scotland portal as part of your tender submission.

**However, the original signed document must be sent to WES (at the following address) by the date indicated in Table 3.**

**Note: this is the only part of the Tender Response which is required to be posted.**

**WES Procurement  
An Lòchran  
10 Inverness Campus  
Inverness  
IV2 5NA**

## CONFLICT OF INTEREST

Whilst bidders will be required to state any actual or potential Conflict of Interest as part of this tender response, further checks will be undertaken with the highest ranking bidders when applicant details for the Call are known. The Confidentiality and Non-Disclosure Undertaking is required to provide information to the potential assessors to fully determine conflict of interest.

WES requires all assessors to note any material interests at the earliest possibility. Failure to disclose relevant information may result in exclusion from this tender or the termination of any contract that may be awarded to you.

The following categories of interests should be considered:

- **Sources of remuneration:** All employment or other contractual arrangements (other than with WES) for which you receive remuneration by virtue of being employed, self-employed, the holder of an office, a director of an undertaking, a partner in a firm, or undertaking a trade or profession
- **Related undertakings:** Any directorships of a parent or subsidiary undertaking which are unremunerated
- **Contracts:** Any contracts that you (or any organisation in which you have an interest) have or are currently negotiating of relevance to WES

- **Shares and securities:** Shares or securities held in a company or organisation which may be significant to the work and operation of WES
- **Non-financial interests:** Any non-financial interests that may be significant to the work and operation of WES

It is also worth considering situations when it would be appropriate to declare relevant interests of close family or friends (indirect interests). Close family includes spouse, live-in partner, parent, child, brother, sister and the spouses of any of these.

Be open and transparent about your interests and always take advice if you are not sure. If in doubt, you should error on the side of caution.

## VALUE

The budget currently available for all external experts through this tender is £48,000 (excluding VAT).

It is currently anticipated that 2 individuals will be selected as assessors from each of the four specialisms outlined in the Expertise Sought section above, with a total of 8 assessors. However, this number may change depending on the number of Call Applications received.

It is expected that the services of the assessor will be required over the dates provided in Table 2 above. However, as indicated, these dates may be subject to change but WES will inform assessors of any changes giving as much notice as possible. Expected unavailability for these key dates must be indicated to WES in the Bidder Response Form.

Within the Pricing Pro Forma, Bidders are required to submit a

- Fixed fee (including T&S and travel time) for the core elements in Assumptions 1-3
- Hourly rate (excluding T&S or travel time) for Assumptions 4-5 which cover additional work if required.

The maximum day rate assumed by WES for each individual is £675 (ex VAT).

## INVOICING/PRICING

Suppliers shall submit an invoice to WES on conclusion of the contract. Payments will be made in arrears and will be based upon the Fixed Fee provided and, for any additional ad-hoc work, the actual number of hours worked.

Evidence of the work carried out shall accompany each invoice. This will be in the form of a list of the applications evaluated. WES shall not be responsible for any delay in payment of the invoice where the invoice is not accompanied, or preceded, by the relevant deliverables. Travel and subsistence for additional ad-hoc work (if required), must be agreed in advance with WES at rates appropriate for a public sector contract.

## SUSTAINABILITY

The sustainability agenda is of growing importance to the Scottish and UK Governments and the wider public sector. Therefore, it is of crucial importance that suppliers and their sub-contractors are increasingly knowledgeable about both the sustainability implications of their services, public sector objectives, policies, standards, targets and legislation. Increasingly, public sector organisations are focusing on their suppliers' and their supporting supply chains to ensure that strategies are in place that minimise environmental impact, including low carbon, low waste, reduced water consumption, increased recycling and respecting biodiversity. The Scottish public sector needs to assure itself these wide-ranging issues are understood, acknowledged and addressed in the procurement and delivery of services. Therefore, WES expect suppliers and their supply chain to be aware of the Scottish Government position on sustainability and to apply these principles when delivering the requirements.

## EQUALITY AND DIVERSITY

Achieving equality and recognising the business and social benefits of diversity are integral to HIE's delivery of the Government Economic Strategy. This is set out in the document "Equality, Diversity and Highlands and Islands Enterprise: a Framework for Action" [www.hie.co.uk/equalityanddiversity](http://www.hie.co.uk/equalityanddiversity) Suppliers delivering functions on WES's behalf should take this into account when providing these services.

WES encourages all suppliers to pay the Living Wage to their employees and to promote payment of the living wage throughout their supply chain.

## STATUTORY OBLIGATIONS

The bidder shall be deemed to have acquainted themselves with, and comply with, all conditions likely to effect the execution of the Specification, including Health & Safety, Equality and Diversity and other regulations in force. No claim for additional payment shall be allowed on the grounds of any misunderstanding or misinterpretation due to lack of knowledge of the conditions, regulations or requirements.

# TENDER GUIDANCE NOTES

## GENERAL

The Contract will be put in place and signed by the relevant bidding entity with the named individual providing the services being specified.

## TENDER QUERIES

This tender is being advertised on Public Contracts Scotland (PCS) ([www.publiccontractsscotland.gov.uk](http://www.publiccontractsscotland.gov.uk)) and WES's own website. PCS is a national advertising portal which provides details of public sector tender opportunities in Scotland. It's free to use and free to register.

All the necessary documentation for this tender should be downloaded through PCS. This also gives bidders access to an on line "Question & Answer" facility which should be used to raise ALL tender queries.

Bidders should note that queries are raised anonymously so the name of your organisation should not be identified in the question. Multiple queries should be split into individual separate questions. Answers will be published via the same facility.

Queries must be raised within the published timescale.

## TENDER RESPONSE

Where responses are being submitted by organisations on behalf of an individual the proposed individual will be regarded as the nominated lead for this tender. Individuals applying under their own company name will be regarded as the nominated lead for this tender.

Only information provided as a direct response to the questions will be evaluated. Information and detail which forms part of general company literature or promotional brochures etc. will not form part of the evaluation process. Marketing material should not be included. Web links should also not be referenced, in part or as a full response, to any question unless specifically requested.

Tenders should be completed on the basis that WES has no prior knowledge of either the bidder's organisation/individual or of any previous projects used as evidence of their capability and capacity.

Information should be provided in the order and format requested and failure to follow the defined format and structure provided is likely to have a detrimental effect on your submission. No unauthorised alterations should be made to the Tender Documentation.

If answers have maximum page limits then these must be adhered to – any additional information provided over these page limits will not be evaluated.

Each individual question is scored solely on the contents of that response alone and pertinent information provided in other responses will not be evaluated.

Bidders are responsible for the accuracy and integrity of the information they provide and WES reserves the right to check the validity of responses at any point during the tendering process.

The submission of erroneous, incorrect or incomplete tenders may result in that tender being disqualified. Where the error or misrepresentation is not discovered until after the Contract has been awarded, WES reserves the right to terminate the Contract and all costs, incurred by WES as a result of the termination, shall be recoverable from the provider under the Contract.

Please note that, as part of the evaluation, WES may require clarification or ask for additional information, regarding any part of your submission.



## TENDER SUBMISSION

Submissions must be made using the PCS Postbox facility only. **The original signed Confidentiality and Non-Disclosure Undertaking must be returned by post to WES by the date indicated in Table 3.**

**Note: this is the only part of the Tender Response which is required to be posted.**

Submissions documents must be in the formats defined in the Bidder Response Form. The maximum file size of any one document is 10MB and the total size of the whole submission should be no more than 30MB. Excel should be returned in the original format. Bidders are requested to ensure these are compatible with Microsoft Office 2010.

Please note the name of the bidding organisation and the specific individual being proposed should be on all files.

WES will reject any corrupt submission which cannot be viewed. Bidders should not upload encrypted documents since this may prevent WES from accessing the document. Bidders should ensure that tenders are complete and legible.

Submissions can be created, edited and dispatched up to the stated tender deadline. Once the deadline has passed submissions can neither be created, edited nor dispatched. Once you have dispatched your response to the postbox you will receive an onscreen confirmation from the PCS system with your unique response ID and it will also issue an e-mail confirming the response.

Bidders should not wait until the last moment before creating, editing or dispatching a response in case of any last minute problems.

The submission must be received by the published deadline. Late tenders will not be accepted.

## EVALUATION PROCESS

The Bidder Response Form has been divided into 3 Parts (A-C). Part A is for information only.

For this tender exercise bidders will be required to pass all of Part B Selection Criteria. If a Pass is not achieved they will be excluded. Bidders who achieve a Pass in all of Part B Selection Criteria will also be evaluated against Part C Award Criteria using an 80/20 Quality/ Cost ratio as detailed below.

A minimum mark of 2 is required for Question 19.

Part	Question	Description	Marks Available	Weighting
A	1-15	Background Information	Information only	
	16	Availability	Information only	
	17	General Expertise	Information only	
B	1	Insurance Requirements	Pass/Fail	
	2	Conflicts of Interest	Pass/Fail	
C	1	Speciality Preference	Information only	
	2	Relevant Professional/Technical Skills and Experience	Max Marks "4" Min score 2 required	40%
	3	Understanding of the key technical challenges	Max Marks "4"	20%
	4	Understanding of WES objectives	Max Marks "4"	20%
	5	Price (including Pricing Pro Forma)	Max Marks "20"	20%

## SCORING METHODOLOGY

The Quality element for the Award Criteria will be marked by the Evaluation Panel according to the following criteria. Panellists score independently from each other with the scores collated and averaged to form a final result.

Score		Criteria
0	<b>Unacceptable</b>	Nil or inadequate response which fails to demonstrate an ability to meet the requirement.
1	<b>Poor</b>	Response is partially relevant but generally poor. It addresses some elements of the requirement but contains insufficient/limited detail or explanation to demonstrate how the requirement will be fulfilled.
2	<b>Acceptable</b>	Response is relevant and acceptable. It addresses a broad understanding of the requirement but may lack details on how the requirement will be fulfilled in certain areas.
3	<b>Good</b>	Response is relevant and good. It is sufficiently detailed to demonstrate a good understanding and provides details on how the requirements will be fulfilled.
4	<b>Excellent</b>	Response is completely relevant and excellent overall. It is comprehensive, unambiguous and demonstrates a thorough understanding of the requirement and provides details of how the requirement will be met in full.

The Price element will be marked based on the tendered bid price i.e. "Total Bid Price" as detailed in your response.

- The average "Total Bid Price" of all evaluated bids will be allocated a score of 50.0 points.
- 1 point is deducted from the score of each tender for each percentage point above the average (rounded up or down to the nearest one decimal point); and 1 point is added to the score of each supplier for each percentage point below the average (rounded up or down to the nearest one decimal point).
- A weighting of 20% is then applied to these points to obtain the final score.

Scores are capped at a maximum of "20" and minimum of "0".

## INDICATIVE TIMETABLE

**Table 3 External Expert Tender - Key Dates**

Description	Dates (2017)	Time (BST)
Contract Notice Published on PCS	10 <sup>th</sup> April	
Last date to request clarification via PCS	25 <sup>th</sup> May	1200 hrs
Last Clarifications issued via PCS	26 <sup>th</sup> May	
Tender Deadline via PCS	31 <sup>st</sup> May	1200 hrs
Confidentiality and Non-Disclosure Undertaking document to be returned by post to WES	9 <sup>th</sup> June	
Clarifications (if required) by email	9 <sup>th</sup> June	
Conflict of Interest Checks (highest ranking only)	14 <sup>th</sup> June	
Contract Award (expected)	7 <sup>th</sup> July	

Bidders should note that, as part of the evaluation process, they may be asked to respond, by email, to requests to clarify their submission. As previously indicated, in the Conflict of Interest section, the highest ranking individuals will also be required to undergo further Conflict of Interest checks following tender submission.

## TENDERING CONDITIONS

This specification should be read in conjunction with WES's Commissioning Letter which will be made available through PCS shortly. These are the only terms and conditions that will govern the service and bidders T&C's will not be accepted. Bidders should note that any tender that includes their own T&C's may be regarded as non-compliant.

Material Changes in Circumstances – Bidders should immediately bring to WES's notice any material change in the financial or other circumstances of the Bidder or any information contained in their response to the Tender since the date of submission.

Any Material Change in Circumstances shall be evaluated in accordance with the criteria set out in the Tender. WES may at its absolute discretion reject or disqualify a Bidder from the tender process, if, as a result of the Material Change in Circumstances they do not comply with the requirements of the criteria set out in the tender.

Failure by a Bidder to disclose any Material Changes in Circumstances since the date of submission of their tender may at the absolute discretion of WES result in the Bidder being rejected or disqualified from the tender process.

Non-compliant proposals may be rejected.

WES is not bound to accept the lowest or any offer and after tender evaluation, recommendations as to the proposed outcome will be presented to the appropriate delegated authority within WES and any offer will be dependent on this approval. All tender bids are valid for three months from the deadline for the submission of tenders.

The successful candidates will be expected to operate in a spirit of mutual trust and co-operation with WES and this will include open book accounting. This will include details of rates and payments made to third party contractors.

Any interested parties are liable for their own costs relating to the tender process.

## **FREEDOM OF INFORMATION**

Bidders should be aware that WES is subject to the terms of the Freedom of Information (Scotland) Act 2002. This means that WES may be obliged to disclose information supplied by bidders. For this reason WES does not accept any express or implied duty of confidentiality as regards any information supplied by any bidder. The words "In Confidence" or any similar such words on documents supplied by a tenderer to WES shall have no legal force against WES.

Bidders should also note that the Scottish Information Commissioner does not regard bidders' price structures as being commercially sensitive information. Such information is therefore potentially subject to disclosure by WES. Information may also be requested under the Data Protection Act 1998 and the Environmental Information (Scotland) Regulations 2004.

In the event of such a request, WES would undertake to consult with you in advance.

## **PUBLICITY**

Bidders should not release any information regarding this tender to any person or organisation (except as may be necessary for the delivery of the contract) without the prior written consent of WES. This restriction is also applicable to any advertising copy or promotional brochures for their own purposes or trade publications.