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Invitation to Tender: Information and Guidance

Supply of Multiparameter Water Quality Instruments

Reference: C26243 (P35487)

September 2024

PART 3 – Contract Strategy

We require a new Call-Off Contract for the supply of multi-parameter instruments in order to equip the Environment Agency with the best evidence gathering instruments available. Future equipment must require substantially less maintenance than previously required, have a longer working life and help create cost savings in future years.

With this in mind, we require a Call-Off Contract for the supply of handheld meters, and units capable of being telemetry compatible. The latter will be used for marine, estuarine and fresh water deployments.

Therefore, the Call-Off Contract is to be split into three Lots. One supplier is to be appointed for each lot, and will be the sole supplier for that lot. The same supplier could be appointed to one or all lots. Preference would be given to the supplier that can provide all three Lots.

- Lot 1 will be for the purchase of: Multi-Parameter Hand Held Water Quality Instruments
- Lot 2 will be for the purchase of: Multi-Parameter Deployable Water Quality Instruments estuarine and fresh water use
- Lot 3 will be for the purchase of: Multi-Parameter deployable for marine use

The Call-Off Contract is to be awarded for 3 years with the option to extend for 2 additional 12 month periods.

The Prices will be those detailed in the pricelist as submitted in the tender. The Prices will be fixed for the duration of the Contract (3 years) and any agreed extension (2 years), until the Contract ends.

The Agency will retain the option to purchase upgrades throughout the term of the agreement and these upgrades should be at the same, if not lower prices as those tendered.

This tender will be conducted as an Open Procedure as governed by the Public Contracting Regulations 2015

This is a single stage procedure and no negotiation is permitted. The buyer may clarify any assumptions prior to making a final award decision.

Following evaluation of the final tenders received, we will inform all bidders of the final result via a Regulation 86 notice in accordance with the Regulations.

Unsuccessful bidders will be notified of:

- Their score against the award criteria
- The winning bidder
- The score of the winning bidder
- The characteristics and relative advantages of the winning bid

A statutory 10 day standstill period will commence after the Regulation 86 notice has been sent electronically to all of the bidders, after which the contract will be awarded to the successful supplier.

Low or Standard Good and Services Terms and Conditions will apply

[Low value terms and conditions for goods and services \(under £10,000\) - GOV.UK \(www.gov.uk\)](#)

PART 4 – Procurement Tender Process

Key elements of the process have been reviewed and the planned activities and timescales are:

| Activity | Date |
|--|-------------------------------------|
| Invitation to Tender issued to suppliers | 10 - 12 September 2024 |
| Final Clarifications | 09 October 2024 @ 14:00 Hours (BST) |
| Return of Invitation to Tender deadline for suppliers | 18 October 2024 @ 14:00 Hours (BST) |
| Evaluation Process and timescales for action | 21 October – 5 November 2024 |
| Suppliers notified of intention to award | 14 November 2024 |
| Standstill Period (10 days) | 15 – 25 November 2024 |
| Successful Supplier(s) notified with Contract Award date/Contract Issued | 25 November 2024 |
| Contract Start Date | 2 December 2024 |

It should be noted that these timescales and activities might be subject to change.

Right to Cancel

The Environment Agency reserves the right to discontinue the procurement process at any time, which shall include the right not to award a Contract, and does not bind itself to accept the lowest tender, or any tender received, and reserves the right to award the Contract in part, or to call for new tenders should it consider this necessary.

The Environment Agency shall not be liable for any costs or expenses incurred by any candidate or tenderer in connection with the completion or submission of any tender.

PART 5 – Tender Evaluation Process

Mandatory Cabinet Office questions

Please refer to the Qualification Envelope in Atamis or appendix for the supplier selection questionnaire. This must be completed by all parties delivering the contract.

Suppliers with the most economically advantageous tender in relation to quality and price, evaluated as described in section 1.4.1, will be awarded a Call-Off Contract.

Suppliers may bid for one or all Lots and can be awarded one or all Lots.

PART 6 – Criteria for Tender Evaluation

Tenders will be evaluated against a Cost/Quality weighting ratio of: **60 Commercial (Price)** and **40 Technical (Quality)**.

Technical – (Quality)

Please provide detailed and comprehensive evidence, of meeting or exceeding the specifications required.

This should include:

Detail on how equipment has been tested and proven to meet the requirement

Technical specifications of materials and their performance characteristics used in the production of sonde body, sensor and cable assemblies.

Results of testing and proof of IP ratings.

Results of testing of sensor characteristics and performance over their full working range.

Detailed evidence to support the requirement that; temperature compensation of sensors applies across the full stated operating temperature of the sensors.

All accreditation certificates provided by appropriate authorities.

The Qualification assessment will specifically cover the goods and associated services.

The Technical assessment will specifically cover the core criteria, outlined below:

| Award Criteria | Weighting (%) | Evaluation Topic |
|--------------------------------------|---------------|--|
| E01 Technical Performance | 60 | <p>Please provide detailed and comprehensive evidence, of meeting or exceeding the specifications required.</p> <p>This should include:</p> <ul style="list-style-type: none">• Detail on how equipment how equipment has been tested and proven to meet the requirement• Technical specifications of materials and their performance characteristics used in the production of sonde body, sensor and cable assemblies.• Results of testing and proof of IP ratings.• Results of testing of sensor characteristics and performance over their full working range.• Detailed evidence to support the requirement that; temperature compensation of sensors applies across the full stated operating temperature of the sensors.• All accreditation certificates provided by appropriate authorities. <p>Your response must be a maximum of 6 (six) sides of A4, font size 12. Please upload a document with the filename: "E01 - Your Company Name". Any responses exceeding 6 (six) sides of A4 (excluding the Certificates) will not be evaluated beyond the sixth side. Certificates, technical specifications and testing evidence are excluded from the page count and must be provided separately. These documents should be clearly named "E01 – Your Company Name – Purpose of Document". These</p> |

| | | |
|--------------------------------------|----|--|
| | | additional documents will be used to validate and support the main response. |
| E02 After Sales Provision | 10 | <p>Provide evidence of how you will meet the SLA on equipment, consumables and spares delivery as set out in the Specification. Please include repair and warranty replacements. Details are in the SLA table (<i>NWQIS Service Level Requirements</i>) on page 6.</p> <p>Demonstrate your approach to ensuring a response within 24 hours of an initial enquiry.</p> <p>Please provide mini-CVs detailing the key skills and experience of the project team. Please identify Key Roles and Key Staff (as per Schedule 29) – we expect the Contract Manager and Technical Specialist (or equivalent) to be included. Please provide an organogram of the project team.</p> <p>Your response must be a maximum of 5 sides of A4, font size 12. The organogram can be provided separately. Please upload a document with the filename: “E02 - Your Company Name” and a second document with the filename “E02 – Your Company Name – Organogram”. Any responses exceeding 5 sides of A4 (excluding the organogram) will not be evaluated beyond the fifth page.</p> |
| E03 Quality Assurance | 16 | <p>Provide details of your quality assurance process and demonstrate that it is robust. Demonstrate that all goods meet standards required.</p> <p>Provide detailed documentation illustrating conformity with international performance standards for materials performance and water resistance.</p> <p>Your response must be a maximum of 2 sides of A4, font size 12.</p> <p>Please upload a document with the filename: “E03 - Your Company Name”.</p> |

| | | |
|---|---|--|
| | | <p>The detailed documentation regarding certification is excluded from the page count and must be provided separately in a document/documents named “E03 – Your Company Name – Supporting Evidence”. Any responses exceeding two sides of A4 (excluding the Certificates) will not be evaluated beyond the second side.</p> |
| E04 Approach to Social Value and Lifecycle | 7 | <p>Provide details on how you will support and grow the skillset needed in the wider industry.</p> <p>Demonstrate your understanding of employment and skills issues, and of the education and training issues relating to the contract.</p> <p>This could include: demographics, skills shortages, new opportunities in high growth sectors, groups under-represented in the workforce (e.g. prison leavers, disabled people), geographic/local community and skills/employment challenges. Support for educational attainment relevant to the contract, including training schemes that address skills gaps and result in recognised qualifications.</p> <p>Activities to support relevant sector related skills growth and sustainability in the contract workforce could include: careers talks, curriculum support, literacy support, safety talks and volunteering. Delivery of apprenticeships, traineeships and T Level industry placement opportunities (Level 2, 3 and 4+) in relation to the contract.</p> <p>For further information on the evaluation of Social Value, please see PPN 06/20, available on gov.uk.</p> <p>Your response must be a maximum of 2 sides of A4, font size 12. Please upload a document with the filename: “E04 - Your Company Name”. Any responses</p> |

| | | |
|---|---|---|
| | | exceeding two sides of A4 will not be evaluated beyond the second side. |
| E05 - Approach to Sustainability | 7 | <p>Demonstrate your approach to managing waste disposal and life cycle of the instrumentation, with reference to policies or processes such as Carbon reduction and Circular Economy.</p> <p>Your response must be a maximum of 2 sides of A4, font size 12. Please upload a document with the filename: "E04 - Your Company Name". Any responses exceeding two sides of A4 will not be evaluated beyond the second side.</p> |

Please note Tenderers must not include commercial values in their technical responses; all price information must be submitted in the commercial section only.

Any technical responses that contain commercial details will not be evaluated.

Please Note: The Authority is unable to reveal the budget, based on a Policy decision.

Commercial – (Price)

Appendix A - Lot Based Price

Tenderers will have an opportunity to submit their Lot Based Prices (Appendix A).

The price evaluation will include the Total Price for the cost of their instrumentation

Please provide the Unit Price based on the estimated Quantity of Products, per Annum.

We will multiply the **estimated volumes** provided by the **unit costs**, and the sum of those figures will be the evaluated **price** for each lot.

Please note that these are estimated Quantities only and will not mandate the Quantity of Products purchased during the life of the Contract.

Please complete Appendix A – Lot Based Price



Appendix A - Lot
Based Price.xls.xlsx

Lot 1 – Handheld

| Item | Per annum – estimated | £ |
|----------------------------------|--------------------------|---|
| Hand held display unit | 60 | |
| Sensor body assembly (Bulk Head) | 60 | |
| Temperature probe | 60 | |
| Conductivity probe | 60 | |
| pH probe /body | 60 | |
| NH4 probe | 60 | |
| Turbidity probe | 80 | |
| DO probe | 80 | |
| pH sensor Tip | 800 | |
| NH4 Sensor Tip | 550 | |
| DO membrane Cap | 400 | |

| Item | Per annum – estimated | £ |
|-------|--------------------------|---|
| Total | | £ |

Lot 2 - Deployable Estuarine and Fresh Water

| Item | Per annum – estimated | £ |
|--------------------------------|--------------------------|---|
| Multi parameter body assembly | 40 | |
| Temperature probe | 40 | |
| Conductivity probe | 40 | |
| pH probe /body | 40 | |
| NH4 probe /body | 40 | |
| Dissolved oxygen probe /body | 60 | |
| Turbidity probe | 60 | |
| Chlorophyll / Blue Green probe | 60 | |
| Central wipers | 100 | |
| pH Sensor Tip | 600 | |
| NH4 Sensor Tip | 550 | |
| DO membrane caps | 300 | |
| Cables | 25 | |
| Total | | £ |

Lot 3 - Deployable marine

| Item | Per annum – estimated | £ |
|-------------------------------|--------------------------|---|
| Multi parameter body assembly | 3 | |
| Temperature probe | 3 | |
| Conductivity probe | 3 | |
| Dissolved oxygen probe /body | 3 | |
| Turbidity probe | 3 | |
| DO membrane cap | 12 | |

| Item | Per annum – estimated | £ |
|------------------|--------------------------|---|
| Salinity | 3 | |
| Pressure / Depth | 3 | |
| External | 3 | |
| Cable | 3 | |
| Total | | £ |

The pricing schedule will also provide opportunity to present any discount options that organisations are able to offer.

Commercial Evaluation (40%)

Please complete the pricing schedule, providing prices excluding VAT. Please detail any risks and assumptions made and what has been included in the prices. All expenses should be listed separately and included in the overall amount for your tender. Please indicate if VAT will apply to your services and at what rate. We welcome applications from individual organisations or from consortia.

Tenderers are required to submit a total fixed cost for completion of the project and include a breakdown of costs against each objective. Costs will need to be reasonable and competitive and offer value for money.

Evaluation

The calculation used is the following:

$$\text{Score} = \frac{\text{Lowest Tender Price}}{\text{Tender Price}} \times 40\% \text{ (Maximum available marks)}$$

For example, if three Tender Responses are received and Tenderer A has quoted £3,000 as their total price, Tenderer B has quoted £5,000 and Tenderer C has quoted £6,000 then the calculation will be as follows:

$$\text{Tenderer A Score} = \frac{£3000}{£3000} \times 40\% \text{ (Maximum available marks)} = 40\%$$

$$\text{Tenderer B Score} = \frac{£3000}{£5000} \times 40\% \text{ (Maximum available marks)} = 24\%$$

$$\text{Tenderer C Score} = \frac{£3000}{£6000} \times 40\% \text{ (Maximum available marks)} = 20\%$$

The scoring ranges and approach for evaluation will follow the criteria set out below.

Evaluation of Responses

Evaluation of Responses will be undertaken by a panel appointed by the Authority. Each panel member will first undertake an independent evaluation of the Responses applying the relevant evaluation criteria for each question. Then, a moderation meeting will be held at which the evaluation panel will reach a consensus on the marking of each question.

During the consensus meeting, the decision may be taken that a Response will not be carried forward to the next evaluation stage if the consensus view is that the Tenderer has failed to meet any minimum or mandatory requirements, and/or provided a non-compliant response.

Scoring Criteria

The following scoring criteria is to be used when evaluating responses to Stage 3 Technical Questionnaire. A Tenderer's response will be assessed against the detailed criteria provided for each question and be assigned a Descriptor and score from the table below:

| Descriptor | Score | Definition |
|---------------------|-------|--|
| Very good | 100 | Addresses all the Authority's requirements with all the relevant supporting information set out in the Bidder Pack. There are no weaknesses and therefore the tender response gives the Authority complete confidence that all the requirements will be met to a high standard. |
| Good | 70 | Addresses all the Authority's requirements with all the relevant supporting information set out in the Bidder Pack. The response contains minor weaknesses and therefore the tender response gives the Authority confidence that all the requirements will be met to a good standard. |
| Moderate | 50 | Addresses most of the requirements with most of the relevant supporting information set out in the Bidder Pack. The response contains moderate weaknesses and therefore the tender response gives the Authority confidence that most of the requirements will be met to a suitable standard. |
| Weak | 20 | Substantially addresses the requirements but not all and provides supporting information that is of limited or no relevance or a methodology containing significant weaknesses and therefore raises concerns for the Authority that the requirements may not all be met. |
| Unacceptable | 0 | No response or provides a response that gives the Authority no confidence that the requirement will be met. |

If a score of Two or Zero is awarded to a response to one (1) or more of questions **E01 – E05** the Authority may choose to reject the Tender.

Calculation Method

For both elements, providing the bidder has met any mandatory criteria and minimum quality thresholds, the total weighted scores are calculated as follows:

Technical (WT)

$$\left[\frac{\text{Bidder's Total Technical Score}}{\text{Highest Technical Score}} \times 100 = x \right] \text{ then } \left[\frac{x}{100} \times 60 \right]$$

Commercial (WC)

$$\left[\frac{\text{Lowest Commercial Score}}{\text{Bidder's Total Commercial Score}} \times 100 = x \right] \text{ then } \left[\frac{x}{100} \times 40 \right]$$

Lowest Commercial Score

The Total Score (weighted) is then calculated by adding the Total Weighted Technical Score to the Total Weighted Commercial Score: **WT+ WC**.

PART 7 – Specification/Statement of Requirement

The instruments will be used for statutory monitoring, (including spot sampling), European Union Directive and Environment Management investigations. Equipment will normally be transported by vehicle then carried to a sampling /deployment location by a member of staff.

This specification provides full detail of what is expected in terms of the goods / services supplied under this Call-Off Contract. All goods / service proposed must at least comply with the mandatory parts of the specification or they will be considered non-compliant. This will result in your tender being excluded from the process.

All requirements in sections 2.1, 2.2 or 2.3 of this specification that use the word 'must' will be considered mandatory. Where a requirement also uses the words 'or exceed', the basic requirement is still mandatory but extra technical marks can be scored as described in the table in section 1.4.1 of the tender document. These sections carry an asterisk to identify them.

The successful tender will be required to use the EA catalogue system for our ordering purposes. NWQIS will undertake periodic inspections annually to note any degradation in build quality of equipment casings and sensor performance to note any indications of premature failure.

2.1 General Specification for All Lots

G1*

Sonde, sensor, data logging units and any associated battery housings must be waterproof and meet or exceed IP68 standard. Display units must be waterproof and meet or exceed IP67 standard. Robust, quality assured evidence to support this must be provided.

G2

All sonde / sensor and display units must be fully interchangeable.

G3

Calibration information and recorded data must be secure and recoverable following a battery failure.

G4

There must be an auto switch off function.

G5

The Sonde, sensor and display assemblies must have built in Good Laboratory Practice (GLP) diagnostics and data. They must record time / date of calibration, sensor coefficients, slopes and offsets.

G6

The instruments must be capable of providing automatic pH buffer recognition and must accept manual entry of temperature corrected pH values if required.

G7*

The ranges, accuracy and resolution of sensors fitted to the instruments must meet or exceed the requirements of Sensor specification (below).

Sensor performance must be stated in the tender return by the manufacturer. These stated performance values must apply across the whole working temperature range of the instrument.

All automatic or manual sensor, temperature correction factors must apply across the full working range of the instrument.

Robust, quality assured evidence to support this must be provided.

G8*

The equipment (handsets, sonde bodies and sensor assemblies) proposed must have or exceed a working lifespan of 7 years. With the exception of DO and pH tips that must be warranted for a year and NH4 tips 6 months.

G9

The sensors and battery/batteries if fitted must be housed into a single sonde body.

G10*

The sonde and sensor assembly bulkheads must be constructed of marine grade stainless steel (316) or a material that exceeds this specification regards its corrosion and strength characteristics such as duplex or titanium. Robust, quality assured evidence to support this must be provided.

G11

The sonde and sensor assembly bulkheads must be capable of withstanding exposure to detergents; methanol based cleaning agents and Virkon disinfectant. Robust, quality assured evidence to support this must be provided.

G12*

The instruments must meet or exceed a period of 4 weeks to remain within calibration.

G13

The sonde, sensor and display assemblies must be capable of direct connection to a PC for the purposes of calibration and / or software update.

G14

Instruments must retain all calibration offsets, coefficients and settings indefinitely. Individual sensors must be fully transferable from sonde to sonde and retain calibration offsets, coefficients and settings without the need for re-configuration.

G15

The data must be able to be downloaded from the unit to an Environment Agency networked computer (currently a Windows 7 desk PC).

G16

Suppliers must carry out preventative measures to ensure all software is virus free for the life of the contract.

G17

The instruments must be capable of outputting data in RS232 or SDI12 format directly or via an appropriate adapter.

G18

The Contractor must provide any manufacturer derived software upgrades free of charge to the Agency for the life of the contract.

G19

Stored data must be exported in Excel readable format and be able to be converted to an 'XML' format.

G20

Stored data must be protected by non-volatile memory.

G21

All necessary software licensing requirements must be provided. The software and licenses will not be chargeable to the Agency for the life of the contract.

G22

The instruments must offer flexible data logging options.

G23

Data must be secure in the event of a power failure.

G24

Display units must be small enough for hand-held operation in the field and have a backlight for use at night.

G25

The Instruments must be robust and fit for the purpose of use in the field. Robust, quality assured evidence to support this must be provided.

G26*

Handset battery covers must be waterproof and meet or exceed IP67. Robust, quality assured evidence to support this must be provided.

G27

All sensors must be field replaceable.

The instrument must be capable of delivering the following sensors:

Optical Dissolved Oxygen %

Optical Dissolved Oxygen mg/L (derived)

Temperature

Conductivity

Specific Conductivity (derived)

Salinity (derived)

pH

Ammonium

Ammonia (derived)

Turbidity

Chlorophyll A

BGA

Optical Nitrate

FDOM

And have the capability to read additional analogue sensors such as the Turner Hydrocarbon Sensor or other in the same series.

G28

The Agency will retain the option to purchase upgraded instrumentation throughout the term of the agreement. A technical assessment would be undertaken by specialists at NWQIS to assess whether the upgrade is needed and provides improved quality, based on Price.

The Authority would enter into dialogue with the Contractor to achieve the Best Price and Value for Money.

Sensor Specification

Dissolved Oxygen

The instrument must use a dissolved oxygen sensor that employs the Luminescent “Life Time” Dissolved Oxygen measurement technique.

The sensor must be capable of measuring dissolved oxygen in the range of 0-20 mg/l with an accuracy of ± 0.1 mg/l; and in the range of 0-200% saturation with an accuracy of $\pm 1\%$ air saturation.

The sensor must be able to measure dissolved oxygen in the range of 20-50 mg/l with an accuracy spec at this range of $\pm 5\%$ of the reading; and in the range of 200-500% saturation with an accuracy spec of $\pm 5\%$ of the reading.

The optical DO sensor membrane must be field replaceable component that does not require the use of tools to replace.

The Dissolved Oxygen sensor must be able to be calibrated with a one-point saturated air or water technique.

Turbidity

The instrument must be capable of measuring turbidity using a Nephelometric type probe.

It must be able to measure turbidity in the range 0-4000 NTU.

The sensor must have an accuracy of $\pm 2\%$ of reading or 0.2 NTUs (whichever is greater) from 0-999 NTU and an accuracy of $\pm 5\%$ of reading from 1000-4000 NTU.

Temperature

The instrument must be capable of measuring temperature using a NIST-traceable calibrated thermistor in the range of -5 to 50 degrees C with an accuracy of ± 0.01 degrees C; with a resolution of 0.01 degrees C from -5 to 35 degrees C.

Each temperature sensor must include a factory calibration/NIST reference sheet.

Conductivity

The instrument must be capable of measuring conductivity in the range of 0-200 mS/cm with an accuracy of $\pm 0.5\%$ or 0.001 mS/cm and a resolution of 0.001 to 0.1 mS/cm.

The sensor must also be capable of measuring/deriving salinity in the range 2-40 PSU with an uncertainty of 0.2 PSU when calibrated in standard seawater.

pH

The instrument must be capable of measuring pH in the range of 0-14 with an accuracy of ± 0.2 for the entire temperature range with a resolution of 0.01.

NH₄

The instrument must be capable of measuring ammonium (NH₄) in the range 0-200mg/L

with a resolution of 0.01mg/L, with an accuracy $\pm 10\%$ or $\pm 0.5\text{mg/L}$ or whichever is greater, in the range 0-2mg/L and $\pm 20\%$ or 2mg/L, whichever is greater in the range 2-200mg/L.

Chlorophyll and BGA

The instrument must be capable of measuring Chlorophyll A and Phycocyanin with a Total Algae Sensor, a dual-channel fluorescence sensor which measures both chlorophyll and blue-green algae (cyanobacteria) in a single probe.

ORP

The instrument must be capable of measuring ORP in the range of -999 to +999 mV with an accuracy of ± 20 mV and a resolution of 1 mV using a combination electrode with a gel-filled reference electrode.

FDOM

The instrument shall be capable of measuring FDOM in the range of 0-300ppb QSU with a resolution of 0.01 ppb QSU and a linearity of $R^2 > 0.999$ in a serial dilution of 300ppb Quinine Sulphate solution using a UV light sensor.

Nitrate

The instrument must be capable of measuring Nitrate using optical methodology as Nitrogen in the range of 0-10 mg/L with an accuracy of ± 0.4 mg/L, in freshwater, across the full temperature range and within a resolution of 0.01 mg/L.

This sensor will be fully integrated into the instrument without the need for any additional infrastructure.

2.2

Lot Specific Information

Lot 1 specific: Multi-parameter Hand Held Water Quality Instruments (only to be answered by bidders for Lot 1)

LS1.1*

The Instrument must be powered by a re-chargeable battery able to achieve or exceed 48 hours continuous operation on a single charge.

LS1.2

The display unit must be supplied with and be capable of being re-charged using a car charger directly into the unit.

LS1.3*

The instrument must be able to deliver or exceed three sensor configurations including the following

Configuration 1

Optical Dissolved Oxygen
Temperature
Conductivity
Specific Conductivity (derived)
Salinity (derived)
pH
Ammonium
Ammonia (derived)

Configuration 2

Optical Dissolved Oxygen
Temperature
Conductivity
Specific Conductivity (derived)
Salinity(derived)
pH
Turbidity

Configuration 3

Optical Dissolved Oxygen
Turbidity
Additional spare optical port for future proofing e.g.: chlorophyll

Temperature
Conductivity
Specific Conductivity (derived)
Salinity (derived)

2.2

Lot 2 Specific: Multi- Parameter Deployable Water Quality Instruments (only to be answered by bidders for Lot 2)

LS2.1

The logger must be capable of use with real time telemetry systems and must communicate using RS232, SDI12 or RS485. The use of adapters for converting communications protocol is acceptable.

LS2.2

The instrument must be capable of being deployed unattended and log data to an internal memory and third party telemetry systems. The sonde must also be capable of remote configuration through telemetry via RS232 and/or SDI12.

LS2.3

An integrated and effective anti- fouling wiper system that cleans all the sensors must be a configurable option. Robust, quality assured evidence to support this must be provided.

LS2.4*

The multi-parameter water quality instrument when used as a logger must be able to meet or exceed a period of 12 weeks normal operating use (at 15min interval) without needing to change batteries or charge the power unit.

LS2.5

The multi parameter instrument must comprise of one discreet sonde body and be waterproof to a depth of at least 200m.

LS2.9

The instrument must be capable of delivering the following distinct sensor configuration:

Configuration 1

Optical Dissolved Oxygen %
Optical Dissolved Oxygen mg/L (derived)
Temperature
Conductivity
Specific Conductivity (derived)
Salinity (derived)
pH

Ammonium
Ammonia (derived)
Turbidity
Chlorophyll A
BGA

Configuration 2

Optical Dissolved Oxygen %
Optical Dissolved Oxygen mg/L (derived)
Temperature
Conductivity
Specific Conductivity (derived)
Salinity (derived)
pH
Ammonium
Ammonia (derived)
Chlorophyll A
BGA

Nitrate

2.3 After Sales Provision

AS1

All handsets and sondes must offer or exceed a free full 2 years parts and labour warranty.

Sensor warranties must be clearly defined and agreed with the Agency.

AS2

All repairs must be completed within 8 weeks. Any repairs beyond 8 weeks will adhere to the Service Level Agreement Terms. Please refer to **Proposed Timeline and Project Milestones**.

AS3

All equipment that fails whilst under warranty must be replaced free of charge with equivalent equipment for the duration of the repair.

AS4

Supplier must carry a stock of spares throughout the working life described by the supplier in their response to G8. Ion selective modules including pH and NH₄ must be provided for the whole life of the contract.

AS5

The Supplier must provide a single point of contact for purchase of equipment and scheduling of aftersales service. Response to queries from the Agency must be made within 1 working day

AS6

Warranty of sensors will commence on receipt of goods at Environment Agency Premises.

2.4 Future Upgrades

Please provide information regarding any planned upgrades to a) products you are offering under this Call-Off Contract and b) related products not being offered under this Call-Off Contract. We would like to know what improvements / benefits the new products offer. You must inform us if any of the products you are proposing under this Call-Off Contract may become obsolete during the term.

Please also provide the expected launch dates for any new products. For any upgrades to products awarded under this Contract, the Agency will be entitled to take like for like upgrades at the prices awarded for the original product.

This section is for information only and will not be included in the technical evaluation.

Lot 3 - Lot Specific Information

Lot 3 specific: Multi- Parameter Deployable Water Quality Instruments Marine (only to be answered by bidders for Lot 3)

General Specification

2.1 General specification

G1*

Sonde, sensor, data logging units and any associated battery housings must be waterproof and meet or exceed IP68 standard. Display units must be waterproof and meet or exceed IP67 standard. Sonde must have a depth rating of at least 200m. Robust, quality assured evidence to support this must be provided.

G2

All sonde / sensor and display units must be fully interchangeable.

G3

Calibration information and recorded data must be secure and recoverable following a battery failure.

G4

There must be an auto switch off function.

G5

The Sonde, sensor and display assemblies must have built in Good Laboratory Practice (GLP) diagnostics and data. They must record time / date of calibration, sensor coefficients, slopes and offsets.

G6*

The ranges, accuracy and resolution of sensors fitted to the instruments must meet or exceed the requirements of Sensor specification (below).

Sensor performance must be stated in the tender return by the manufacturer. These stated performance values must apply across the whole working temperature range of the instrument.

All automatic or manual sensor, temperature correction factors must apply across the full working range of the instrument.

Robust, quality assured evidence to support this must be provided.

G7*

The equipment (handsets, sonde bodies and sensor assemblies) proposed must have or exceed a working lifespan of 7 years.

G8

The sensors and battery/batteries if fitted must be housed into a single sonde body.

G9*

The sonde and sensor assembly bulkheads must be constructed of marine grade stainless steel (316) or a material that exceeds this specification regards its corrosion and strength characteristics such as duplex or titanium. Robust, quality assured evidence to support this must be provided.

G10

The sonde and sensor assembly bulkheads must be capable of withstanding exposure to detergents; methanol based cleaning agents and Virkon disinfectant. Robust, quality assured evidence to support this must be provided.

G11*

The instruments must meet or exceed a period of 8 weeks to remain within calibration.

G12

The sonde, sensor and display assemblies must be capable of direct connection to a PC for the purposes of calibration and / or software update.

G13

Instruments must retain all calibration offsets, coefficients and settings indefinitely.

G14

The data must be able to be downloaded from the unit to an Environment Agency networked computer.

G15

Suppliers must carry out preventative measures to ensure all software is virus free for the life of the contract.

G16

The instruments must be capable of outputting data in RS232 or SDI12 format directly or via an appropriate adapter.

G17

The Contractor must provide any manufacturer derived software upgrades free of charge to the Agency for the life of the contract.

G18

Stored data must be exported in Excel readable format and be able to be converted to an 'XML' format.

G19

Stored data must be protected by non-volatile memory.

G20

All necessary software licensing requirements must be provided. The software and licenses will not be chargeable to the Agency for the life of the contract.

G21

The instruments must offer flexible data logging options.

G22

Data must be secure in the event of a power failure.

G23

Display units must be small enough for hand-held operation in the field and have a backlight for use at night.

G24

The Instruments must be robust and fit for the purpose of use in the field. Robust, quality assured evidence to support this must be provided.

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G25*

Handset battery covers must be waterproof and meet or exceed IP67. Robust, quality assured evidence to support this must be provided.

G26

The instrument must be capable of delivering the following sensors:

Optical Dissolved Oxygen %

Optical Dissolved Oxygen mg/L (derived)

Temperature

Conductivity

Specific Conductivity (derived)

Salinity

Turbidity

Pressure/Depth

External

And have capability to read an additional 0-5 V analogue sensor.

Sensor Specification - Marine

Dissolved oxygen

The sensor must be capable of measuring dissolved oxygen in the range of 0-20 mg/l with an accuracy of +/- 0.2 mg/l; and in the range of 0-200% saturation with an accuracy of +/- 2% air saturation.

Turbidity

The instrument must be capable of measuring turbidity using a Nephelometric type probe.

It must be able to measure turbidity in the range 0-1500 NTU.

The sensor must have an accuracy of +/- 2% of reading or 0.2 NTUs

Temperature

The instrument must be capable of measuring temperature in the range of 0.5 -35 degrees C with an accuracy of +/- 0.1 degrees C;

Each temperature sensor must include a factory calibration/NIST reference sheet.

Conductivity

The instrument must be capable of measuring conductivity in the range of 0-60 mS/cm with an accuracy of +/- 0.15%

Salinity

The instrument must be capable of measuring salinity in the range of 2 - 40 with an accuracy of 0.2

Pressure / Depth

The instrument must be capable of operating to a depth of 200m in the range of 50 dBar with an accuracy of 0.5 dBar.

External

The instrument must have a 0-5v analog input.

Proposed Timeline and Project Milestones

The Contract is intended to commence on 2 December 2024 and expire on the 2 December 2027 unless extended, using the optional 2 year extension period. Project milestones will be agreed between the Project group and the Contractor at the outset of the project and be Contract Management using KPIs and SLAs to assess the Quality of the Service and Products.

The Service Level Agreements (SLAs) are detailed below.

| NWQIS Service Level Requirements | | | | | | | |
|---|--|---|--------------------------------------|--|--------------------------|-------------------------------|--------------------------------------|
| Multiparameter system/Response requirements | Mandatory new equipment delivery timescale | Mandatory consumable delivery timescale | Mandatory repair delivery timescales | Mandatory replacement of any faulty equipment (which are within warranty) delivery timescale | Repair completed on time | Repair completed 2 weeks late | Repair completed beyond 2 weeks late |
| Sonde body | 6 weeks | 4 weeks | 6 weeks | 2 weeks | Complete Payment | 80% Payment | Free |
| Optical Dissolved Oxygen | 6 weeks | 4 weeks | 6 weeks | 2 weeks | Complete Payment | 80% Payment | Free |
| Temperature | 6 weeks | 4 weeks | 6 weeks | 2 weeks | Complete Payment | 80% Payment | Free |
| Conductivity | 6 weeks | 4 weeks | 6 week | 2 weeks | Complete Payment | 80% Payment | Free |
| pH | 6 weeks | 4 weeks | 6 weeks | 2 weeks | Complete Payment | 80% Payment | Free |
| Ammonium | 6 weeks | 4 weeks | 6 weeks | 2 weeks | Complete Payment | 80% Payment | Free |
| Turbidity | 6 weeks | 4 weeks | 6 weeks | 2 weeks | Complete Payment | 80% Payment | Free |
| Algal Sensor | 6 week | 4 weeks | 6 weeks | 2 weeks | Complete Payment | 80% Payment | Free |
| Nitrate | 6 weeks | 4 weeks | 6 week | 2 weeks | Complete Payment | 80% Payment | Free |
| Mandatory Response Timescale | | | | | | | |
| Enquiry response time | 24 hours | | | | | | |