Dorset Green H2 Project

FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND OPERATIONAL TRAINING OF A HYDROGEN SUPPLY SYSTEM CONSISTING OF AN ELECTROLYSER, HYDROGEN COMPRESSION EQUIPMENT AND TWIN TRAILER FILLING FACILITY

Instructions to Tenderers

Date: 26 April 2021

Return Date 26 May 2021

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INVITATION TO TENDER

TENDERERS are required to fully comply with the following Instructions to Tenderers when preparing their tenders. Tenderers' particular attention is drawn to the fact that non-compliance with such instructions may, and in stated circumstances shall, invalidate their tender.

1. INTRODUCTION

1.1 Project Summary

This project comprises of the installation of an electrolyser with a compressor directly connected to a solar farm that has operational capacity of 5MW with supplemental energy either coming from locally installed gas engines or the grid.

The proposed 1 to 1.5 mega-Watt (MW) Proton Exchange Membrane (PEM) electrolyser will be installed on-site and used to produce green hydrogen, from a potable water feed and will be powered by the co-located solar farm – producing a carbon free fuel and energy storage opportunity that can be used to help decarbonise a number of downstream applications.

Within this project, the green hydrogen will be produced, compressed and filled into hydrogen trailers.

This hydrogen is anticipated to be transported off-site for a variety of applications, however, neither of these distribution/use scenarios are included within this Tender.

This tender covers the delivery of hydrogen production, compression and trailer filling system which is required as soon as possible.

1.2 Project Scope

Both the Electrolyser and compression/trailer filling equipment shall be supplied in accordance with the diagram, provided below, within the red outline. Any deviations from this proposed scope and system requirements, should be thoroughly detailed, and explained by the Principal Contractor.

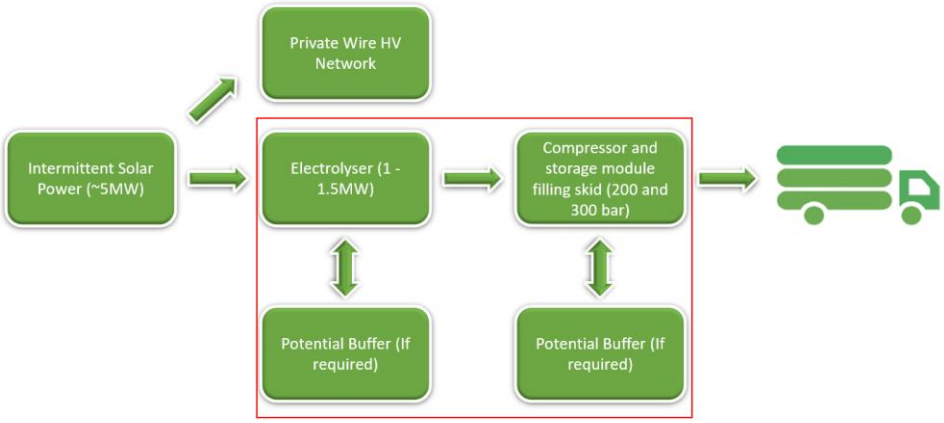


Figure 1: CRE Project - scope for The Principal Contractor is included within the red bracket.

The Principal Contractor will integrate the operation of the electrolyser and the compression/storage systems and detail the standards to be which the compressor will be designed and manufactured.

1.2.1 *Lot One – Supply, Delivery, Installation, Commissioning, Operational Training and 5-year maintenance programme for a 1.0 to 1.5 MW PEM Electrolyser*

The Principal Contractor should provide full details on the following characteristics as a minimum:

- Electrolyser and control system for green hydrogen production
- Size should be optimised to the Principal Contractors' equipment portfolio but must be sized to be within the range 1 to 1.5MW of power consumption, with a minimum guaranteed output of 150,000 kg/annum and an expected daily output in excess of 400kg
    - Principal Contractors with more than one standard offering within this size range may bid multiple options.
- Production efficiency should be broken down for all systems offered across a full operational range i.e. at 10%, 20%, 50% 75% and 100% operation
- Expected system degradation in terms of change of kW/kg after 5 years and 10 years of operational life should be provided
- Ramp rate of electrolyser to be a minimum of 100%/min when operating or in stand by mode
- Details of operational experience and any operational optimisation taken on projects with direct connection to renewables and how this experience will be applied within this project should be included
- Overall and individual elements of the complete hydrogen system should be capable of being controlled both locally and remotely
    - The Principal Contractor to define control philosophy for the overall hydrogen system including electrolyser, compressor(s) and trailer filling
    - Operate within the specification for ambient temperatures at the site (-15°C to +35°C)
    - Any necessary cooling is the responsibility of the Principal Contractor
    - System should be configured to be accessible for maintenance
    - Hydrogen produced should be of purity 99.999% and meet EN 17124 requirements.
    - Maintenance costs for a period of 5 years to ensure 98% onstream operation should be included and highlighted within the electrolyser system costs
- System must be built within a containerised or alternative weather-proof enclosure
- CRE will connect an 11kV cable onto the Principal Contractor supplied transformer terminals. The Principal Contractor should include in their scope the full electrical supply for the hydrogen system including and from the required transformer.

1.2.2 *Lot Two – Supply, Delivery, Installation, Commissioning, Operational Training and 5 year maintenance programme for a Hydrogen Compression and Trailer Filling System*

The Principal Contractor should provide full details on the following characteristics as a minimum:

- Compression, control and hydrogen storage module filling system for pressures up to 300 bar together with any associated intermediate buffer between the electrolyser and the compressor
- The Principal Contractor's Compression offer should include two options:
  - Offer 1 – a single compressor train running as the sole compression system for the full electrolyser production rate.
  - Offer 2 – two compressor trains that run together each capable of handling 50 - 70% of the electrolyser production rate.
    - The Principal Contractor should maximise the flowrate capacity available for the capital deployed
- The Principal Contractor should contrast the two systems, including expected efficiencies, lifetimes, system downtime expectations, maintenance costs etc.
- Both offers should include a standard full 5 year operating & maintenance package
- The Principal Contractor should provide the costs for, and highlight its location in the system design, an optional hydrogen pay meter suitable for this installation
- Filling system should have autonomous change-over capability between 2 connected storage modules (trailers)
  - Delivery of hydrogen to the storage modules at 300 bar
  - A secondary 200 bar option which is fully interlocked to prevent over-pressure
- No contaminants or impurities should be introduced into the hydrogen from the compression system
- System must be built with a 'soft' start capability within a containerised/skidded, or alternative weather-proof enclosure
- Back pressure protection for low-pressure sections of the total system must be included
- Design should remove all hydrogen embrittlement risk
- Must not exceed the maximum allowed noise level for the employer's location when in normal operation maximum 75 dBa, 1m from each equipment package
  - Any deviations should be highlighted
- Overall and individual elements of the hydrogen system should be capable of being controlled both locally and remotely
- The Principal Contractor to define control philosophy for the overall hydrogen system including electrolyser, compressor(s) and trailer filling
- Operate within the specification for ambient temperatures at the site (-15°C to +35°C)
- Any necessary cooling is the responsibility of the Principal Contractor
- System should be configured to be accessible for maintenance
- Maintenance costs for a period of 5 years to ensure 98% onstream operation should be included within the electrolyser system costs
- CRE will connect an 11kV cable onto the Principal Contractor supplied transformer terminals. The Principle Contractor should include in their scope the full electrical supply for the hydrogen system including and from the required transformer.

1.2.2 *Intermediate Piping, Vent Stacks and Buffers*

The Specifications of the piping, and any buffers, are as follows:

- Any installation, including but not limited to pipework formation, cabling and welding activities are subject to the standard site approval methods for the contractor.
- It is anticipated that all new cabling and pipework installed between the system components and connection to utilities at the battery limits of the supplier site will be provided by the Principal Contractor and be above ground, suitably supported, as well as protected from weathering effects and potential hazards, unless fully justified by the Principal Contractor
    - Any approved underground piping must also have suitable corrosion
- The location of all system vents require site-approved HAZOP assessments, prior to installation.
    - Furthermore, any vent stack pipework must minimise the potential for, and extent of, explosive atmospheres at the site.
- Any buffer should be sized by the Principal Contractor based on the control philosophy to ensure the smooth operation of the total system (taking into account both the electrolyser and compressor).
    - Either vertical or horizontal orientation should be possible - dependant on size
    - Overpressure protection is required
    - Designed to withstand expected system pressure changes.

1.2.3 *Process Control*

The Principal Contractor is responsible for the safe handling of all process signals, interfaces, inputs and values used to control the installation.

The operation, monitoring, control and safe operation of all supplied hydrogen system components and processes should be fully incorporated into the system's control systems.

Any required changes, or updates, to the software, should be included within the quotation.

The architecture of the control and safety systems must include the following features:

- The installation should be capable of autonomous operation, without regular human interaction.
- The control systems provided should be proven, robust and have high availability.
- The Principal Contractor should use software which is easily maintainable.
    - The Principal Contractor should also provide any necessary operating licenses with the implemented system.
- The control system of the hydrogen system shall protect the equipment from damage (i.e. from the wrong potential input from the solar farm control system).

As a minimum the following signals should connect the solar farm to hydrogen system to allow remote operation:

H_2 system:

- On/Off Status
- On/Off Command
- Emergency Shutdown Command
- Emergency Shutdown Active
- Hydrogen Detection
- Fire Detection
- Production Setpoint Command
- Storage Status for Both Fill Points
- Mimic Screen Showing Other Status Information

Human Machine Interfaces (HMI) should have different levels of access and have the option of being password locked to allow varying levels of operator different levels of system control and process upset analysis/diagnostics. Its software shall be supplied with any necessary operating licenses.

The Principal Contractor and customer shall agree the HMI navigation menu and the logical layout/progression of all screens.

The HMI should include:

- Graphical presentation of:
    - Processes
    - Sequences
    - Object Statuses
- Reporting, acknowledging and logging of alarms, warnings and events.
- Logging of current process data and acquired archive data.
- Archiving of measured values and alarms, warnings and events in a process database.

The control system shall be capable of both logging data, with an acceptable sample rate and data storage time for CRE, and reports on operation/performance of the hydrogen system. The log should contain the following data:

- Input and Output Signals
- Calculated Values
- Alarms
- Warnings
- Status
- Events
- Set Points

1.2.4 Supplier Battery Limits (Site, Proposed Location)

The battery limits indicate the scope boundaries between the Principal Contractor and CRE. These boundaries can be seen in the images below.

Site

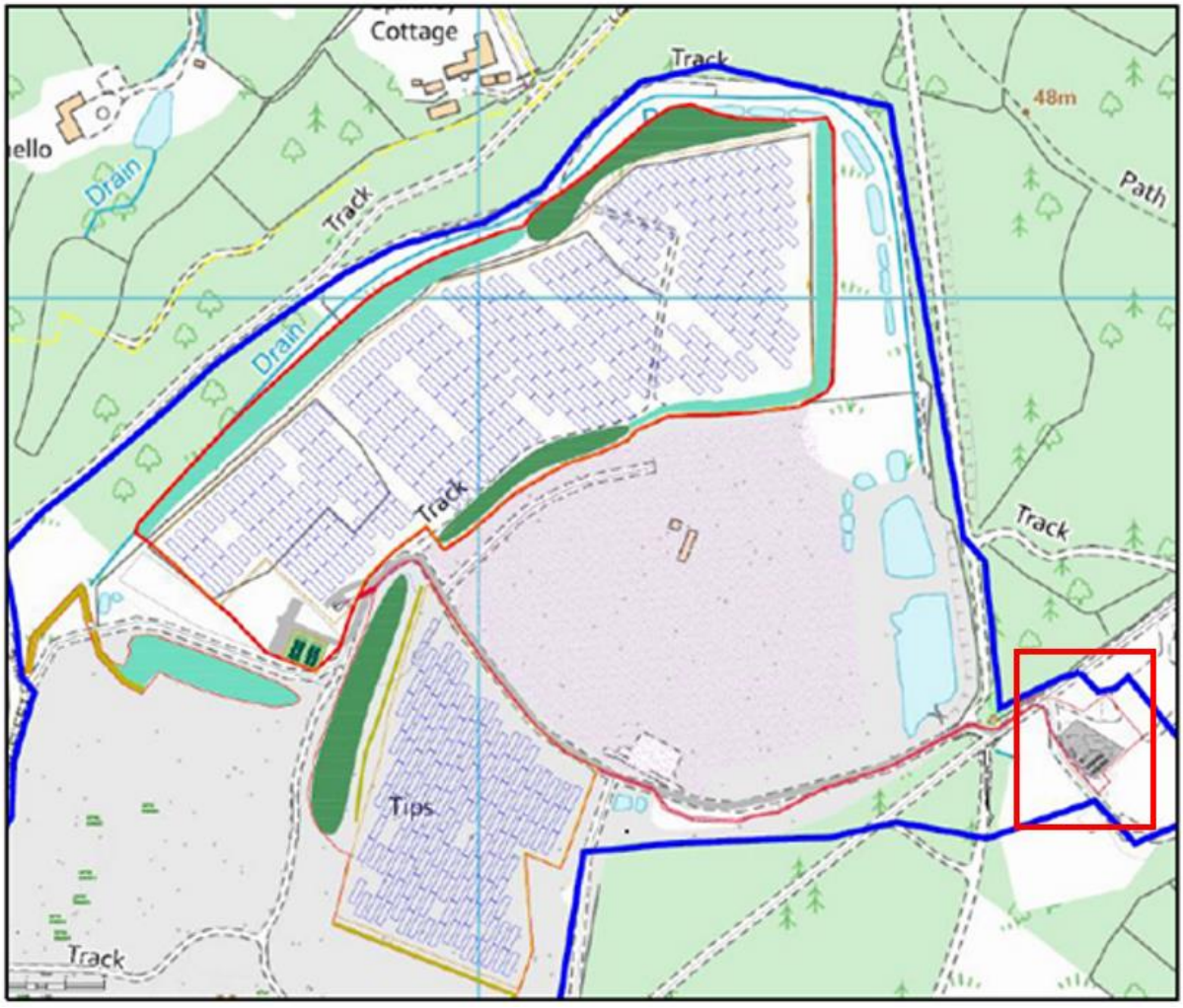
The Principal Contractor must define the size of the plot they require for the full system, including any connection requirements between system elements.

The Principal Contractor must define the foundation requirements for the equipment comprised within the proposed system. As well as this, the Principal Contractor shall indicate the specification of all interface points in a timely manner, to allow CRE to arrange the necessary connections in the correct location. The Principal Contractor should cost for the connection of the utilities from the Site battery limits to the equipment. Battery limits should be assumed to be a maximum of 10m from each element of the hydrogen system. CRE will connect to the terminals of required transformer from the B4 Substation.

Proposed Location

The location may change depending on the outcome of planning consent, however, this is not expected to affect the supply or connections of the electrolyser, and subsequent equipment.

Site Address: Energy Site Control Centre, Arena Way, Wimborne, Dorset , England, BH21 3BW



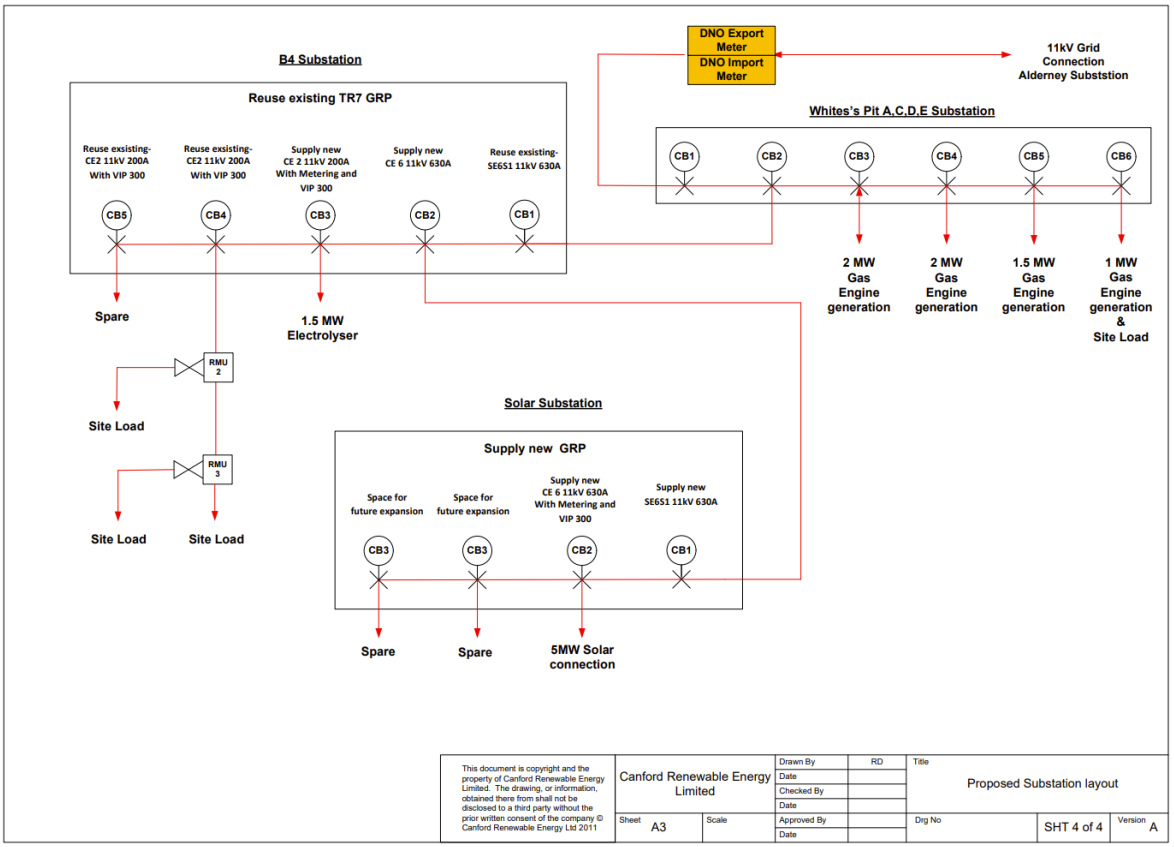
Indicative Eagle eye view of the solar farm – bold red outline (right hand side) is the proposed location of the hydrogen installation.

Indicative zoomed-in view of the proposed site (location within bold red outline on previous image)

Ground level images:

Ground level image of the proposed site

Site lay-out single line diagram:



Indicative Single Line Diagram of the CRE site, including electrolyser site.

1.2.5 Utility Connections Available at Battery Limits at the Proposed Site

Electrical supply

- The Principal Contractor will provide the costs for an optional harmonic filter for the electrolyser, which CRE will purchase if required for the electrical system.
- The Principal Contractor will provide harmonic studies of their equipment, with and without filtering, to ensure no disruptive interference with equipment on the CRE site.
- An 11kV connection to the Substation B4 HV switch, connected on to the terminals of the supplied transformer, will be provided by CRE at the site location, with any further electrical equipment required (e.g. transformer and downstream equipment) to be provided by the Principal Contractor.

Water supply

- A 63mm water pipe runs parallel to the proposed site and thus can provide UK standard specification potable water to the Principal Contractor's installation.
- The Principal Contractor should define their expected potable water consumption.
- Any additional polishing required should be included within the electrolyser supply.

1.2.6 Scope of Work/Supply

All labour and materials, necessary for the completion of the work in a safe, timely and efficient manner are the responsibility of the Principal Contractor. This includes, but is not limited to:

- Design, engineering, purchasing, manufacturing, testing, transportation, storage, construction and commissioning (including labour/materials) of the supplied system as detailed in this specification.
- Supply of systems with functionality according to this specification, including, for example, on-site activities such as cranage/installation works (etc.).
- Method Statements and risk assessments for the scope of works.
- Participation in the HAZOP study in England with attendance by appropriately qualified individuals with full understanding of the project
- Necessary Tests for confirmed functionality of system and installation:
    - FAT – Factory Acceptance Test
    - SAT – Site Acceptance Test
    - OAT – Operational Acceptance Test
- Supply of a full set of required documents (in word format) – as detailed throughout this document.
- Supply of application software and associated manuals for all control systems, including all necessary licenses for operation.
- Training for site staff, as specified.

The following items are excluded from the scope of the Principal Contractor:

- Electrical connection to the CRE's system beyond the transformer.
- Water connection to the CRE's system at the battery limits (10m).

- Any electrical cables or provisions of other utilities beyond the battery limits of the supplier's plot.
- Fencing

1.2.7 Maintenance and Production capacity over first 5-years operation

The system must produce a minimum of 400kg of hydrogen per day at the energy consumption rate defined by the Principal Contractor, for the whole of an initial 5-year operating period. An anticipated preventative maintenance schedule is required for this initial 5-year operating period – including the electrolyser, compressor and any buffers for the filling systems.

A service agreement containing a costed schedule with details of all spares, the Principal Contractor's labour costs, any remote service costs and consumables used over an initial 5-year period is required from the Principal Contractor.

1.2.8 Project Management

1.2.8.1 Team

The Principal Contractor is expected to allocate sufficient resources to produce an appropriate structure that ensures the timely and delivery, installation and operation of a reliable system. Furthermore, the Principal Contractor is expected to communicate with CRE in a satisfactory manner, including regular reporting to CRE and on-going project management. Regular, recorded meetings should be organised by the Principal Contractor, with CRE, to update on the whole status of the project.

1.2.8.2 Schedule

A detailed GANTT chart should be provided by the Principal Contractor detailing all significant/critical path events that will enable the on-time operation of the system. This GANTT chart should include details on the following:

- Design/Engineering
- Purchasing
- Manufacturing
- Testing
- Site access
- Delivery to site
- Installation
- Commissioning
- Snagging
- Training

Any omissions to these details should be explained. Updates to these charts should be effectively communicated to CRE on a monthly basis, in the form of a progress report on project activities.

1.2.8.3 Delivery Plan

The Principal Contractor shall prepare a project delivery plan covering all equipment and site activities (e.g., detailed design, sub-contractor management for main equipment modules, procurement, delivery, method statements, installation and commissioning, etc.).

1.2.9 Power distribution within supplier plot

CRE will provide power to the Principal contractor supplied transformer terminals . The Principal Contractor will distribute the power throughout its plot to feed all equipment within his scope of supply. The power factor shall be a minimum of 0.8, ideally as close to 1 as possible.

1.3 Risk and Safety

Upon receiving an order, the Principal Contractor will:

- Prepare a full and thorough Risk Analysis outlining any appropriate mitigation steps to be undertaken for the activities to be undertaken.
- Confirmation of both the tender Health and Safety Plan and compliance with Health and Safety Regulations together with any information required to verify such compliance.
- Involve CRE for final design/interface approval.
- The Principal Contractor will comply with and fulfil all necessary CDM regulations.
- A method statement for the construction, installation and commissioning of the works or any element thereon.
- Attend any safety/HAZOP assessments with appropriately qualified/knowledgeable staff.
- Prepare a control and layer of protection analysis (control philosophy document) for the whole system.
- The Principal Contractor will provide CRE with an Operation & Maintenance manual upon completion of the installation.
- The Principal Contractor will provide CRE with a health and safety file upon completion of the installation.
- The Principal Contractor will provide CRE with a risk register for the entire installation upon completion of the installation.
- CRE reserve the right to safety audit, as well as quality assurance audit following during the construction phase of the project and after completion of the installation.

1.4 Facilities

The following facilities are available onsite for the Principal Contractor to make use of during the installation phase of the project:

- CRE will provide the Principal Contractor with a lay down area
- All other facilities required to be provided by the Principal Contractor

1.5 Form of Contract

The Principal Contractor of the electrolyser system shall ensure that the system shall comply with:

- the requirements of this specification
- necessary design codes for the UK.
- any other requirements as listed and referred to in this document

Each of these documents shall be the latest revision in effect on the date that an order is placed.

1.6 Directives and Standards

It is the responsibility of the Principal Contractor to conform to the regulations and standards that are detailed below and all others that it deems apply to the installation – all associated costs with obtaining regulatory approvals, and inspections associated with them, is also the responsibility of the Principal Contractor.

Unless otherwise specified, European standards shall be used – these standards should not be limited to those listed within this specification.

The hydrogen supply system and all components used shall meet all the applicable EC Directives and EN/ISO/SAE standards relevant for CE marking, PED, ATEX and hydrogen supply included but not limited the following:

Directive	***Equipment***
Directive 97/23/EC	Pressure Equipment Directive
Directive 2006/42/EC	Machinery Directive
Directive 2014/35/EU	Low Voltage Directive
Directive 94/9/EC	Equipment for use in potentially explosive atmospheres (ATEX)
ISO 80079-37:2016	Non-electrical equipment (ATEX)
EN 60079-14:2014	Electrical Equipment (ATEX) - (Explosive atmospheres - Part 14: Electrical installations design, selection and erection)
	Category IV (PED)
ISO 22734:2019	Hydrogen generators in industrial and commercial applications
NPR-ISO/TR 15916:2015	Basic considerations for the safety of hydrogen systems
SAE J2719	Hydrogen fuel quality for fuel cell vehicles

The Principal Contractor shall be the OEM or 'Manufacturer' of his complete proposed system as defined by the European Directives, including all aspects concerning the parts delivered by sub-contractors.

Any components and systems shall be CE marked and have appropriate certificates of conformity; explosion protection certificates (ATEX) and associated documentation including any risk assessment/technical construction dossier.

2. CONFIDENTIALITY

Tender Documents must be treated as private and confidential. No parts of the Tender Document should not be shared/released by Tenderers unless on a confidential basis to potential subcontractors for project works (or for tendering sub-contractors, for the purposes of consultation whilst preparing the tender).

3. LANGUAGE AND CURRENCY

3.1 Language

All submission, documents and correspondence submitted in relation to this Tender, as well as the Contract, should be in English.

3.2 Currency

The rates and extensions for all financial information within the Schedules, and any other section of the Tender, should be in Sterling (£) and completed to two decimal places.

4. COMMUNICATION

4.1 Contact

Any communications associated with this tender should be communicated directly to the Engineer (as defined by the Contract) in writing – by electronic submission – at the following details:

Person: Josh Williamson

Company: HyEnergy Consultancy ltd.

Address: Squirrels Wood, 39 St. Johns Street, Crowthorne, Berkshire, England, RG45 7NQ

Email: Josh.Williamson@hy-energy.co.uk

Telephone: +44 (0)7944 240014

Except insofar as may be directed in writing by CRE, no agent or servant in their employ has any authority to make any representation or explanation to Tenderers as to the meaning of these Instructions, the Conditions of Contract, the Employer's Requirements, the Schedules or to any other matter so as to bind CRE.

Tenderers shall not communicate with any servant, employee or agent of CRE, except as to the extent and in the manner provided within these instructions.

Any queries or questions regarding the documentation, or anything regarding the Tendering process, should be submitted to the Engineer as soon as possible. Tenderers calling for sub-tenders should inform those individuals that correspondence should be directed to the Tenderer, not employer.

Communications (enquiries, queries, clarifications etc.) in connection with the Tender shall not be formalised or accepted until such time as they have been submitted in writing via electronic submission.

4.2 Notice from CRE

Up to 5 working days prior to the latest date for receipt of tenders as set out herein (or otherwise instructed in accordance with these Instructions), the Engineer acting on behalf of CRE may issue a Notice by email to all persons or firms who have registered an Intent to Bid and received the Tender documents, deleting, varying or extending any item in or adding any items to these documents. Any such Notice shall then form part of the Tender documents and shall be treated as such by the Tenderer.

Only the Engineer may issue a response to tenderers on any issue or query; all responses to queries by Tenderers contained in notices issued by the Engineer, should contain the terms of the query, together with the response – but will make no reference to the identity of the tenderer. All responses and notices shall be made available to all Tenderers to view here.

No extension to the Tender Period will be considered on the grounds that insufficient time is available for Tenderers to take the Notice into consideration in their tenders, and Tenderers will be responsible for notifying the Engineer of their queries in sufficient time and identifying where an early response is required.

4.3 Returning Documents

Any drawings and other documents issued as part of the tender process and not returned or required to be returned with the Tender shall be sent to the Engineer as identified in Section 4.1 above.

5. AMBIGUITY, DISCREPANCY, ERROR, OMISSIONS

Should the Tenderer become aware of any ambiguity, discrepancy, error or omission in or between the Tender Documents, he shall immediately notify the Engineer. The Engineer, upon receipt of such notification, shall notify all Tenderers of his ruling in respect of any such ambiguity, discrepancy, error or omission. Such notification by a Tenderer and a subsequent ruling by the Engineer shall be issued in accordance with Section 4 of this document and shall form part of the Contract Documents.

Tenderers shall check the number of pages of the documentation. Should any part be found to be missing or unclear, the Tenderer should notify the Engineer at once for clarification and should confirm in writing to the Engineer their query and the response given within seven days of the notification.

Should there be any doubt or obscurity as to the meaning of any of the Tender Documents, or risk, liability or obligation to be undertaken by the Contractor, Tenderers should request clarification in writing from the Engineer in accordance with Section 4 of these Instructions.

No liability whatsoever (including in time for completion or cost) will be accepted by CRE or the Engineer for any errors in the Tender or variances of the Tender from the requirements of the Contract due to any ambiguity, discrepancy, error or omission which it is reasonable to expect should have been identified by the Tenderer during the tender period.

6. TENDER RETURN

6.1 Contact

The Tender shall be made on the Letter of Tender and shall be submitted via e-mail, with flagged status if possible, to the address below:

F.A.O. Mr. Joshua Williamson,

Email: Josh.Williamson@hy-energy.co.uk

The Engineer shall acknowledge the receipt of tenders via e-mail response to the address that the tender has been submitted from, unless otherwise stated.

Any tender or amendment to any tender delivered into the inbox of the Engineer after the deadline for submissions will not be considered. The Engineer's decision on whether a tender has arrived in time is final.

6.2 Format of Submission

The tender shall be made on the Letter of Tender incorporated in Annex 1 and the Schedules should be fully priced, monied out and totalled and signed by the Tenderer. All areas should be filled in with all items priced, or provided with a reference to other items under which the cost is included. The blanks in any schedule/annexes shall be completed.

6.3 Checklist of Documents

A checklist of documents, all of which are to be completed legibly on the documents supplied and returned with the Letter of Tender, is given below:

- Letter of Tender
- Priced Schedule of Items
- Project Specific Programme
- HSE Plan

Tenders may not be considered if the complete information specified is not given by the date for return of tenders.

6.4 Deadline for Submissions

Tenderers shall complete and return the intent to bid as soon as possible but at least by 12/05/21.

Questions and Queries should be submitted at the latest by 21/05/21. Responses to individual queries will be made directly and all will be published within 5 days on the designated portals.

Tenders shall be returned by 4:00PM on 26/05/2021, however, it is the preference of the employer that the tender be returned in ample time, by 12/05/2021 where possible.

The Tenderer is advised that if they have submitted tender and that it is received in accordance with the requirements given above they have the right to modify, make corrections to, or withdraw it provided that any such modifications, corrections, or withdrawal is received, via e-mail, accordance with the aforementioned requirements for the submission of tenders prior to the time specified for the submission of tenders. In this event, the original tender as thus modified or corrected will be considered as the tender. After the time specified for submission, no tender can be withdrawn or modified except after negotiations initiated by CRE.

The Letter of Tender and supporting documentation may be issued in advance by email in accordance with the provisions of these Instructions. Any Tenderer which does not comply with the above requirements shall be excluded from further consideration.

6.5 Extension of Deadline

The deadline for tenderers' submissions is considered to be fixed and will only be extended in exceptional circumstances. Should an extension be required, the tenderer should contact the Engineer, by e-mail, detailing the reasons for such an extension and the desired length of extension.

Upon receipt of an application that the Engineer agrees to be valid, he shall then notify all Tenderers of the revised Deadline for Submission, in accordance with the instructions within Section 4 (if the application is deemed to be justified).

No extension applications will be considered if within 5 working days of the current deadline for submission. Moreover, both the Engineer and CRE reserve the right to refuse such applications, regardless of the circumstances cited by the Tenderer.

6.6 Tender Validity

Tenders shall remain open for acceptance for a minimum of 180 days from the Deadline for Submission as set out in Section 6.4 above.

7. REQUIREMENTS FOR A COMPLIANT TENDER

The Tender shall be submitted strictly in accordance with the Contract Agreement and its associated Annexes, as well as the Instructions to Tenderers.

All tender applications must include the following information:

- Details of your relevant experience and explain how you will apply it.
- Examples of similar projects you have worked on. This should include contact details for referees and agreement that we can make contact with the referees.
- A short (approx. 300 words) explanation of your suitability to deliver the project.
- Cost per package (if appropriate) and an overall price for the package(s) detailed in the attached specification.
- Confirmation of any exclusions from the overall price.
- A payment schedule, to include a minimum of a 5% retention until the 12-month anniversary of Practical Completion.
- Confirmation that you can achieve the proposed timescales, which assume: mobilisation in October 2021; installation of solar substructure in November 2021; solar panel and inverter installation by end of January 2022; electrolyser installation by end of January 2022; with the entire project to be commissioned by no later than March 2022; and the project to be fully operational by 1st April 2022 or before.

The Tender shall not be qualified in any way by statements or general reservations which could be construed as rendering the tender equivocal or placing it on a different footing from other tenders, no matter the expression. Any such qualification, no matter how otherwise favourable, will lead to rejection. Tenderers must ensure that descriptive or explanative text which they may deem part of their tender, does not constitute qualify them for rejection.

The Tender should be placed on the official Letter of Tender, which shall be signed by the Tenderer with the Tender Total inserted therein. No unauthorised alterations should be made to this document, nor the Schedules when submitting. Attention should also be drawn to the need to provide both original and electronic copies of the completed Letter of Tender and Schedules when submitting.

Tenders should only be signed by the Tenderer, or in the case of a Limited Company, the secretary or individual authorised to sign tenders on behalf of the Company, whilst also providing the legal name of the Company and full business address.

Any tender not complying with the above requirements shall be excluded from further consideration.

CRE reserves the right to reject any tender without giving reason.

The offer of a bribe, or any other inducement to any person with a view to influencing the rewarding of the contract will result in an instant rejection of the Tender.

All rejected or unsuccessful Tenders will be confidentially destroyed by the Employer.

8. ALTERNATIVE TENDERS

Where a Tenderer wishes to submit alternative proposals to those specified in the tender documents, this should be done by way of an alternative tender.

No alternative tender will be considered unless a tender fully compliant with these Instructions to Tenderers, without qualification, is also submitted. Any alternative tender must also be free of qualifications and must show clearly where costs would differ from the compliant tender. An alternative tender that does not meet these requirements may be summarily rejected by the Employer, whose decision in the matter shall be final.

In assessing an alternative tender, the Engineer and Employer reserve the right to insist on design criteria and requirements that suit their general requirements in terms of maintenance, materials, methods of construction, etc. and to reject any alternative tender considered inappropriate.

The alternative shall clearly show all deviations from the Employer's Requirements and Conditions of Contract. The Tenderer shall submit, together with the alternative, all amendments to the Specifications, Schedules and Drawings which would be brought about to the Tender Documents by the adoption of the alternative.

It shall be a term of any Contract that may be awarded on the basis of an alternative that the Contractor will be entirely responsible that the Works or any part of the Works affected by his alternative submission will be fit for the purpose for which they are required.

9. PRICING

9.1 Contract Price

The Tender Price shall include the necessary payments to comply with all acts, laws, rules, work permits, National Insurance Contributions, Government Stamp Tax, taxes and regulations including any import duties at the time of tendering.

9.2 VAT

Rates quoted in the Schedule of Work Items should be exclusive of Construction Value Added Tax as provisions are made for the inclusion of Value Added Tax in the General Summary to the Schedule of Work Items.

9.3 Tender Costs

CRE is not responsible for, and will not pay for, any expenses or loses accrued by any Tenderer throughout the preparation of their tender.

9.4 Contract Price Fluctuations Clause

Tenderers should note that the Contract will not include a Contract Price Fluctuations Clause. No price variation will be allowed for any rise, or fall, in cost of labour, materials, rates of currency exchange or any other factors affecting prices or services, unless expressed under the Conditions of Contract.

Tenders that are not fixed and firm in accordance with these requirements will be considered non-responsive and may be rejected.

10. DESIGNERS & SUB-CONTRACTORS

10.1 Designers

If the Principal Contractor intends to appoint a designer, or specialist engineers, for all, or any element of the Works, then the name of the designer in each case should be submitted with the Tender on the form provided.

If a designer is proposed to be appointed, after the execution of the contract, then that designer should first be approved by CRE.

CRE reserves the right to reject any designer proposed, without giving a reason, and accepts no liability arising out of the rejection of the designer.

The Tenderer is also required to submit details of the procedures utilised for selecting and approving designers for work on projects.

All designers shall be required to supply a Collateral Warranty in respect of the design work they are carrying out.

10.2 Sub-Contractors

If the Tender intends to appoint a sub-contractor, or several specialist sub-contractors, for any element of the Works then the name of the sub-contractor in each case is required to be submitted with the Tender on the form provided.

If a sub-contractor is proposed to be appointed after the execution of the Contract, then that subcontractor must first be approved by the Employer.

CRE reserves the right to reject any sub-contractor proposed, without giving a reason, and accepts no liability arising out of the rejection of the sub-contractor.

The Tenderer is also required to submit details of the procedures utilised for selecting and approving sub-contractors for work on projects.

In completing the list of proposed sub-contractors, the Tenderer is required to identify what portion of the overall Contract is being carried out in each case. Where any sub-contractor is carrying out in excess of 20% of the total value of the Contract they shall be required to provide a Performance Bond for that element of the Works. Any sub-contractor carrying out in excess of 20% of the total value of the Contract shall be required to be identified at Tender stage and their Performance Bond required to be provided before the Effective Date as specified in the Contract.

11. FORMS, BONDS, CONTRACTS

11.1 Letter of Tender

The provisions of Section 7 of these instructions are to be highlighted in the completion of the Letter of Tender.

11.2 Conditions of Contract, Forms, Guarantees and Agreements

It is to be noted that, notwithstanding any mutually agreeable correction of ambiguities, discrepancies, errors or omissions within these documents, their form and content are fixed and are not to be the subject of negotiation with any Tenderer.

11.3 Retention / Performance Bond

The Employer, at his sole discretion, may decide to accept, at the time of issue of a Certificate of Substantial Completion, an on-demand retention bond instead of retaining the balance of the retention monies as set out in the Contract.

5% of the total value of the tender will be retained by CRE and paid to the Tenderer after 12 months of continuous successful operation of the electrolyser and compression systems.

12. CONTACT AWARD CRITERIA

The selection of the successful contractor will be based on an objective assessment of the received quotes, with the weighting per category being as follows:

- 40% to price/cost
- 30% to quality/experience
- 30% to confidence/delivery

You are invited to submit a proposal on the project that includes and evidences, but not limited to, your organisation's ability to meet the evaluation criteria for:

- Price/cost – an assessment of price will be undertaken with the response that represents the best value for money gaining a full score and all other responses being scored on a pro-rata basis.
- Quality/experience - an assessment based on the material presented in the quote to deliver a high-quality outcome with supporting detail providing examples that detail experience in delivering similar projects and how this experience will be applied.
- Confidence/delivery - an assessment based on the material presented in the quote to manage the project to reach the required outcome that provides confidence of project delivery within the proposed timescales.

The following evaluation criteria will be applied to each of the weighting categories to evaluate all tender submissions:

- 5 out of 5 = Excellent. Comprehensive and detailed response that provides high levels of confidence that the required service and delivery will be achieved. Demonstrates excellent understanding of the specification and contract requirements. In the case of the evaluation of price/cost, the lowest price bid will receive a score of 5.
- 3 out of 5 = Good. Response addresses key issues and is adequately developed. Provides good levels of confidence that the required service and delivery will be achieved. Demonstrates good understanding of the specification and contract requirements.
- 1 out of 5 = Basic. Response addresses a limited range of issues and is basically developed. Provides only limited levels of confidence that the required service and delivery will be achieved. Demonstrates only a basic understanding of the specification and contract requirements.
- 0 out of 5 = Unacceptable. No response or response fails to address issues and is poorly developed. Provides little or no confidence that the required service and delivery will be achieved. Demonstrates little or no understanding of the specification and contract requirements.

The tender submission that achieves the highest evaluated score will be awarded the contract and the tenderer will be notified by the Engineer of their position as the Provisional Contractor and details of their evaluated score. Each unsuccessful tenderer shall also be notified by the Engineer including news of their unsuccessful tender, the evaluated score and name of the Provisional Contractor and how the unsuccessful tenderer's evaluated score compared. Following the Engineer's notification, there will be a 10-day stand still period in which unsuccessful tenderers have the opportunity to appeal the decision relating to the Provisional Contractor. Assuming resolution of any appeals, at the end of these 10 days, the Provisional Contractor will be awarded the contract.

Furthermore, CRE does not bind itself to accept any tender in full and reserves the right to exclude any part of the scope of works as set out in the Tender Documents from the Contract. No compensation will be paid in respect of any part of the works so excluded.

13. Tender Evaluation

13.1 Tender Opening

All tenders will be opened and assessed after the deadline for submission, and under no circumstances before this. This shall be carried out by CRE in the presence of the Engineer and the initial ranking shall be recorded on the basis of the uncorrected tender submitted.

13.2 Review & Compliance Check

If any Tenderer has deviated to a substantial degree from the specified technical requirements, or provides an alternative offer that deviates significantly from the Specification, without also making an offer that satisfies all the conditions of this specification, or if equipment offered is of an inferior technical quality, then their Tender may be rejected.

The Tender Documents include a detailed description of the technical requirements and standards to which the equipment must be supplied and works constructed.

Tenders submitted will initially be reviewed to confirm:

- The Tenders are duly signed.
- The Tenders comply substantially with the requirements of the Tender Documents.
- The Tenders comply with requirements concerning nationality of contractors and origin of all goods.
- The Tenders contain no calculation errors.

13.3 Errors and Adjustments

When evaluating Tenders, the Tender price will be adjusted by:

- Correction of any arithmetic errors.
- No adjustment will be made for tenders which offer to complete the works in a shorter time than is required by the Tender Documents. Tenders based on completing the works in a longer time will be adjusted by adding the value of the appropriate delay damages as defined in the conditions of contract.
- If the terms of payment offered are different from those specified, an adjustment will be made by calculating the present value of the payments using an interest rate of 5%.
- Appropriate adjustments for any other acceptable quantifiable deviations or variations to bring the tender to full compliance with the Specification.
- Excluding provisional sums and contingencies.
- Adding the value of an estimated quantity of work priced at the day-work rates and/or unit rates quoted in the Tender.

13.4 Total Evaluated Price

The Total Evaluated Price will be determined for each Tenderer following the above procedure.

14. ADDITIONAL INFORMATION

A detailed consideration will be undertaken to decide on the award of the contract, during which the Tenderer may be asked to supply further information that is deemed of interest by CRE in order to determine the most economically advantageous tender to the Employer. Such information may include, but is not limited to:

- Information of a financial nature in order to assist CRE in determining the financial stability of the Tenderer.
- Any other information required by the Engineer or Employer to evaluate the tender (including alternative tenders).

The Tenderer is advised that any or all of this information may be included in the Contract to be signed on award.

Failure to submit the requested information within the time limit specified with the request from the Engineer or extended time limit as may be agreed with the Engineer, shall exclude the Tender from further consideration.

15. SITE VISITS

Tenderers visiting the site must first obtain permission from CRE through the Engineer, who will arrange a mutually acceptable date, time and duration of such visit. A minimum of 48 hours notice is required for such a visit request.

Any visiting personnel must adhere to site requirements, as well as COVID-19 social distancing measures. Visiting persons will only be admitted onto the site if they possess a negative COVID-19 lateral flow test, at most one week prior to the visit. This result must be sent to the Engineer, with associated documents that prove the result, at least 48 hours prior to vising the site.

ANNEX 1 - FORM OF LETTER TO CONFIRM INTENTION TO BID – HYDROGEN INSTALLATION

LETTER CONFIRMING INTENT TO BID

Letter to be in the general form given below.

NAME OF CONTRACT:

Canford Renewable Energy Hydrogen Installation

TO: Josh Williamson

Canford Renewable Energy

We have examined the information provided regarding the above-mentioned works and can confirm that we, _____ of _____ intend to provide a bid for the Canford Renewable Energy Hydrogen Installation within the tender period.

The contact details of our proposal lead are:

_____

_____

Yours sincerely,

XXXXX

End.

ANNEX 2 - FORM OF LETTER TO TENDER

LETTER OF TENDER

NAME OF CONTRACT:

Canford Renewable Energy Hydrogen Installation

TO: Josh Williamson

Canford Renewable Energy

We have examined the information provided regarding the above-mentioned works: Conditions of Contract, Employer's Requirements, Specifications and related design and construction documents. We have examined, understood and checked these documents and ascertained that they contain no errors or defects. Accordingly, we offer to design, execute and complete the whole of the said Works and remedy any defects therein, in conformity with this Tender, including all documents and the enclosed proposal, for:

Electrolyser £ _____ (excl. VAT)

Compression £_____ (excl. VAT)

Total Cost £_____ (excl. VAT)

TOTAL COST IN WORDS _____

Delivery Schedule – Post contract Award

Electrolyser Delivery: _____ Months

Compressor Delivery: _____ Months

or such other sum as may be ascertained in accordance with the Conditions of Contract.

We undertake to complete and deliver the whole of the Permanent Works comprised in the Contract within the time stated in the tender proposal.

If this offer is accepted, we will provide the specified Performance Security, commence the Works as soon as is reasonably practicable after the Commencement Date, and complete the Works in accordance with the above-named documents within the Time for Completion.

In consideration of CRE supplying us the tender documents free of charge, we agree to this tender remaining open for acceptance for 180 days from its receipt of this tender (or such extended time as may be agreed between CRE and this tenderer).

We understand that you are not bound to accept the lowest or any tender you may receive.

SIGNATURE: _____

IN CAPACITY OF: _____

DULY AUTHORISED
TO SIGN TENDERS
FOR AND ON BEHALF OF: _____

ADDRESS: _____

_____

DATE: _____

End.