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Planning

UKRI-2253 R80 Tower Decommissioning and Adiabatic Cooler Design and Build

UK Research and Innovation

F01: Prior information notice
Prior information only
Notice identifier: 2022/S 000-016528
Procurement identifier (OCID): ocds-h6vhtk-034735
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Section I: Contracting authority

I.1) Name and addresses

UK Research and Innovation

Polaris House, North Star Avenue

Swindon

SN2 1FL

Contact

STFC Procurement

Email

procurement@stfc.ac.uk

Telephone

+44 1793442000

Country

United Kingdom

NUTS code

UK - United Kingdom

Internet address(es)

Main address

https://www.ukri.org

I.3) Communication

Additional information can be obtained from the above-mentioned address

I.4) Type of the contracting authority

Body governed by public law

I.5) Main activity

Other activity

Research and Innovation

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

UKRI-2253 R80 Tower Decommissioning and Adiabatic Cooler Design and Build

Reference number

UKRI-2253

II.1.2) Main CPV code

- 45331230 - Installation work of cooling equipment

II.1.3) Type of contract

Works

II.1.4) Short description

UKRI wishes to establish a Contract for the provision of R80 Tower Decommissioning and Adiabatic Cooler Design and Build. The estimated value of this opportunity is £1,000,000 - £1,500,000. The scope includes management and delivery of design and construction services for the R80 Chilled water and process systems at the site address Rutherford Appleton Laboratory, Harwell, Oxford, Didcot OX11 0QX.

The Contractor is required to act as a design and build contractor and will be responsible for all civil, mechanical, electrical construction; installation and commissioning of the following – but not limited to - within the CDM Works area (i.e., The R80 roof area) and in accordance with the Completion Dates (See Provisional Programme within Appendix D - UKRI-1404 Project Brief).

- 8 No New Adiabatic coolers (AC's).

- Connecting pipework and fittings to and the new AC's within the CDM Works Area.

- All types of valves (isolation, regulating, non-return either manual or actuated).

- Commissioning sets and pressure reducing valves.

- Testing and drainage points.

- Basket and other Filters.

- All steel support work for the Adiabatic Coolers.

- All pipework supports.

- All local electrical power and signal cabling with cable trays etc and supports.

- All necessary civil surveying /setting out work.

The Contractor will be entirely responsible for organising the decommissioning and removal of the existing Balticare Cooling Towers within the CDM Works Area.

The aim is to modernize both the chilled and process water circuits. The preferred option is to cool the Process Water returned from the Hall's area with a bank of 8 No 'V' Adiabatic Coolers capable of providing up to 3.2 MW cooling. These will be direct

replacements for the existing BAC cooling towers.

The chillers - located in the adjacent plant room -will also be replaced (under a separate tender see R80-TECH—09A) with a number of more energy efficient modular alternatives (e.g. TURBOCOR range using a low GWP / non-flammable alternative refrigerant e.g. R513a) so as to provide a total Chilled water cooling capacity of 2.4MW. The chilled water system will remain as a primary circuit only since there is sufficient chilled water capacity (estimated 30 m3) within the large flow and return header pipes installed to the Hall's area.

II.1.5) Estimated total value

Value excluding VAT: £1,250,000

II.1.6) Information about lots

This contract is divided into lots: No

II.2) Description

II.2.3) Place of performance

NUTS codes

- UK - United Kingdom

Main site or place of performance

UNITED KINGDOM

II.2.4) Description of the procurement

This PIN is to advise the market of this procurement and to provide details on the planned Market Engagement to be held week commencing 27th June. This will provide an opportunity to find out more about the requirement as well as provide valuable feedback. The intention is to hold individual sessions with each interested party. If you are interested in participating, please send an email to STFCprocurement@ukri.org for more information.

Background

The ISIS Neutron and Muon Source is a world-leading centre for research at the STFC Rutherford Appleton Laboratory near Oxford. The R80 facility houses the Second Target Station (TS2) and its associated neutron beamlines. At the end of each beam line is an instrument hut complete with research instrumentation all of which require a source of

suitably graded cold demineralised water. The Demin cooling water used to cool the target is provided by a ‘closed loop’ circuit with the duty/standby pump arrangement; two Plate Heat Exchangers (PHExs) and associated controls situated within the Level 2 West Plant Area T222. Likewise, the instrument water is fed from a similar set up situated within the Level 2 West Plant Area T220 on the same storey. A source of cooling is also necessary for the focusing magnets and associated power supplies along the main proton beamline that leads to TS2 - known as the Extract Proton Beamline 2 or EPB2. The R6 Plant link room – situated in the corridor that links the R6 facility to R80 – houses the EPB2 Magnet Demin cooling water system and a separate power supplies Demin circuit. All the above ‘closed loop’ water circuits contain a ‘coarse’ grade cooling PHEx that uses the process water (PW) and a PHEx fed with chilled water (CHW) used to ‘trim’ each circuit Demin to the required Semin water supply temperature.

Currently the process water circuit is a ‘closed circuit’ system comprising of 5 No Balticare (BAC) VX1-180-4+XB towers each rated at 800 kW. These towers are located on the R80 4th floor roof. Adjacent to the roof area leading to the first two towers is the R80 Chilled Water Plant room (Level 4 West plant room T410) which houses both the duty/standby process water pumps and 3 No TRANE 850 kW R134a charged RTHD C2 D5 E4 Chillers which are water cooled using the PW. Flow is maintained through the packaged chillers and primary loop header system by duty/standby chilled water pumps located within the Level 2 West plan room T222 together with the target circuit. Besides providing cooling to the different CHW PHExs mentioned above the chilled water system also provides substantial space cooling via Fan Coil Units (FCUs) situated in the R80 office; laboratories; server and control rooms.

The water circuits were originally designed and installed by HADEN-YOUNG during the original construction phase of the R80 facility in 2006.

II.2.14) Additional information

This is not a Call for Competition. A Contract Notice will be issued as a call for competition. Not registering an interest shall not prevent any supplier participating in a future procurement, nor is it intended that any information supplied shall place any supplier at an advantage in a potential procurement process.

II.3) Estimated date of publication of contract notice

18 July 2022

Section IV. Procedure

IV.1) Description

IV.1.8) Information about the Government Procurement Agreement (GPA)

The procurement is covered by the Government Procurement Agreement: Yes

Section VI. Complementary information

VI.3) Additional information

To view this notice, please click here:

https://ukri.delta-esourcing.com/delta/viewNotice.html?noticeId=697281305

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