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Future opportunity

H3AT ISS

United Kingdom Atomic Energy Authority

F01: Prior information notice

Prior information only

Notice reference: 2021/S 000-006981

Published: 6 April 2021, 11:36am

Section I: Contracting authority

I.1) Name and addresses

United Kingdom Atomic Energy Authority

Culham Science Centre

Abingdon

OX14 3DB

Contact

Abigail Woods

Email

abigail.woods@ukaea.uk

Country

United Kingdom

NUTS code

UKJ14 - Oxfordshire

National registration number

N/A

Internet address(es)

Main address

<http://www.gov.uk/government/organisations/uk-atomic-energy-authority>

Buyer's address

<https://uk.eu-supply.com/ctm/Company/CompanyInformation/Index/72814>

I.3) Communication

The procurement documents are available for unrestricted and full direct access, free of charge, at

https://uk.eu-supply.com/app/rfq/rwlentrance_s.asp?PID=37407&B=UK

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

Fusion Research

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

H3AT ISS

Reference number

T/AW049/21

II.1.2) Main CPV code

- 51000000 - Installation services (except software)

II.1.3) Type of contract

Services

II.1.4) Short description

A Supplier will be required to undertake the Preliminary and Final Design phase of the ISS sub-system and potential equipment, and process trials prior to delivery to site at Culham Science Centre. The system will undergo a Factory Acceptance Test (FAT) prior to site delivery. Installation, a Site Acceptance Test (SAT) in conjunction with supplier, and integration into the H3AT Tritium Loop will be carried out by the Systems Integrator/Integrated Control System contractor(s). Anticipated system description The Isotope Separation System (ISS) separates a mixture of the six different Q2 (hydrogen) forms into streams containing predominantly H2 (protium), D2 (deuterium) and T2 (tritium) species. Cryo-distillation is the chosen technology. Cryodistillation exploits the small difference in volatility between the isotopes to achieve separation. The quantities of isotopologues of hydrogen – HD, HT and DT are reduced in the system using packed beds of catalyst, known as equilibrators.

II.1.6) Information about lots

This contract is divided into lots: No

II.2) Description

II.2.2) Additional CPV code(s)

- 42123300 - Compressors for refrigerating equipment
- 42510000 - Heat-exchange units, air-conditioning and refrigerating equipment, and filtering machinery
- 42511000 - Heat-exchange units and machinery for liquefying air or other gases
- 42511100 - Heat-exchange units
- 42511110 - Heat pumps
- 42511200 - Machinery for liquefying air or other gases
- 42910000 - Distilling, filtering or rectifying apparatus
- 51100000 - Installation services of electrical and mechanical equipment
- 51110000 - Installation services of electrical equipment
- 51112000 - Installation services of electricity distribution and control equipment
- 51112100 - Installation services of electricity distribution equipment
- 51112200 - Installation services of electricity control equipment
- 51120000 - Installation services of mechanical equipment
- 51230000 - Installation services of testing equipment
- 51430000 - Installation services of laboratory equipment
- 51500000 - Installation services of machinery and equipment
- 51510000 - Installation services of general-purpose machinery and equipment
- 51800000 - Installation services of metal containers
- 51810000 - Installation services of tanks
- 71300000 - Engineering services
- 71320000 - Engineering design services
- 71323000 - Engineering-design services for industrial process and production
- 71330000 - Miscellaneous engineering services
- 71333000 - Mechanical engineering services
- 71334000 - Mechanical and electrical engineering services
- 71335000 - Engineering studies
- 71336000 - Engineering support services
- 71340000 - Integrated engineering services
- 71350000 - Engineering-related scientific and technical services
- 73000000 - Research and development services and related consultancy services
- 73100000 - Research and experimental development services
- 73120000 - Experimental development services
- 73300000 - Design and execution of research and development
- 73430000 - Test and evaluation

II.2.3) Place of performance

NUTS codes

- UKJ14 - Oxfordshire

Main site or place of performance

Culham Science Centre

II.2.4) Description of the procurement

A Supplier will be required to undertake the Preliminary and Final Design phase of the ISS sub-system and potential equipment, and process trials prior to delivery to site at Culham Science Centre.

Upon completion of development trials, the system will undergo a Factory Acceptance Test (FAT) prior to site delivery. Installation, a Site Acceptance Test (SAT) in conjunction with supplier, and integration into the H3AT Tritium Loop will be carried out by the Systems Integrator/Integrated Control System contractor(s).

Anticipated system description

The Isotope Separation System (ISS) separates a mixture of the six different Q2 (hydrogen) forms into streams containing predominantly H2 (protium), D2 (deuterium) and T2 (tritium) species. Cryo-distillation is the chosen technology. Cryodistillation exploits the small difference in volatility between the isotopes to achieve separation. The quantities of isotopologues of hydrogen – HD, HT and DT are reduced in the system using packed beds of catalyst, known as equilibrators. These are located in the streams between the 4 cryodistillation columns and promote the formation of H2, D2 and T2.

II.3) Estimated date of publication of contract notice

15 July 2021

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