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Planning H3AT ISS

United Kingdom Atomic Energy Authority

F01: Prior information notice Prior information only Notice identifier: 2021/S 000-006981 Procurement identifier (OCID): ocds-h6vhtk-02a2b6 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/rfg/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 equilibriators.

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 equilibriators. 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