Planning

# Dry Test Cryostat , Current Leads and Power Supply With option for a Background Magnet

United Kingdom Atomic Energy Authority

F01: Prior information notice
Prior information only
Notice identifier: 2022/S 000-007799
Procurement identifier (OCID): ocds-h6vhtk-032511
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## Section I: Contracting authority

### I.1) Name and addresses

United Kingdom Atomic Energy Authority

Culham Science Centre

Abingdon

OX14 3DB

**Contact**

Colette McKernan

**Email**

colette.mckernan@ukaea.uk

**Country**

United Kingdom

**NUTS code**

UK - United Kingdom

**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=45126&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

Dry Test Cryostat , Current Leads and Power Supply With option for a Background Magnet

Reference number

T/CMK059/22

### II.1.2) Main CPV code

- 38230000 - Electromagnetic geophysical instruments

### II.1.3) Type of contract

Supplies

### II.1.4) Short description

To design and manufacture a cryostat with closed cycle cryogenic cooling system, with a 20K test piece temperature in a vacuum. With an option to include an integrated superconducting 4 magnet, in addition to its associated removable mountings and cryogenic current leads.

### II.1.6) Information about lots

This contract is divided into lots: No

## II.2) Description

### II.2.2) Additional CPV code(s)

- 38230000 - Electromagnetic geophysical instruments

### II.2.3) Place of performance

NUTS codes

- UK - United Kingdom

Main site or place of performance

Rotherham UK

**II.2.4) Description of the procurement**

To design and manufacture a cryostat with closed cycle cryogenic cooling system, with a 20K test piece temperature in a vacuum. With an option to include an integrated superconducting 4 Tesla magnet, in addition to its associated removable mountings and cryogenic current leads.

The cryostat within its design will include, though not limited to the following:

• Cryocooler(s) with option to retro fit (if required) for an integrated superconducting magnet.

• Cryogenic coolant supply and recovery (closed cycle) to support cryocooler(s).

• Reservoir for the circulating Helium gas (if required).

• Cryogenic chiller compatible with the cryocoolers and be of sufficient capacity to support:

• A dedicated magnet cryocooler

• Cryocoolers such as: Sumitomo RDK-500B, 40/45W @ 20K or Cryomech AL630 100w @20K

• Temperature controller for the UUT / test sample range to be agreed.

• Vacuum chamber and associated depression gauge for the UUT test environment.

• Mechanical support of UUT.

• The UUT shall have a test temperature of 20k whilst being supplied a continuous current of 1kA at up to 5v dc.

• Ambient condition current leads to supply 1kA at up to 5v dc from dedicated power supply.

• Cryogenic current leads suppling current from ambient conditions (room temperature) to the UUT of 1kA at up to 5v dc.

• Mechanical support for power leads that interface face with UUT cryogenic leads.

If selected as an initial option, the 4T superconducting magnet is anticipated to be of

‘solenoid configuration’ with dedicated cryogenic current leads to minimise heat load on the cryogenic

• The magnet may require its own dedicated cryocooler.

Both the magnet and its current leads are to be demountable such that, if required the magnet can be replaced or upgraded.

### II.3) Estimated date of publication of contract notice

23 June 2022

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## 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