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Planning

In-Vessel Mirrors for the MAST-U EBW System

United Kingdom Atomic Energy Authority

F01: Prior information notice

Prior information only

Notice identifier: 2021/S 000-031225

Procurement identifier (OCID): ocds-h6vhtk-030170

Published 15 December 2021, 12:06pm

Section I: Contracting authority

I.1) Name and addresses

United Kingdom Atomic Energy Authority

Culham Science Centre

Abingdon

OX14 3DB

Contact

Hugo Silva

Email

hugo.silva@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/rwlenrance_s.asp?PID=41585&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

In-Vessel Mirrors for the MAST-U EBW System

Reference number

T/HS286/21

II.1.2) Main CPV code

- 38622000 - Mirrors

II.1.3) Type of contract

Supplies

II.1.4) Short description

UKAEA is installing an Electron Bernstein Wave (EBW) system on MAST-U, which aims at injecting two dual-frequency (28GHz and 34.8GHz) microwave beams each of up to 900kW and pulse duration of 4.5s.

There are eight 1 OFF in-vessel copper-coated graphite mirrors. The primary function of the in-vessel mirrors is to redirect the microwaves, produced by the gyrotron, and direct these into the plasma.

The main microwave mirror face has a curved profile, providing focusing of the beam. The curved profile is defined using an ellipsoid shape.

These mirror faces absorb a small percentage of the microwaves. These absorbed microwaves act as a heat flux on the mirror face in a gaussian distribution, peaking at 750kW/m². A uniform radiative plasma load of 210kW/m² also acts on all faces excluding the mirror face.

II.1.5) Estimated total value

Value excluding VAT: £1

II.1.6) Information about lots

This contract is divided into lots: No

II.2) Description

II.2.2) Additional CPV code(s)

- 14715000 - Copper
- 14814000 - Artificial graphite
- 71333000 - Mechanical engineering services

II.2.3) Place of performance

NUTS codes

- UKJ14 - Oxfordshire

II.2.4) Description of the procurement

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There are eight 1 OFF in-vessel copper-coated graphite mirrors. The primary function of the in-vessel mirrors is to redirect the microwaves, produced by the gyrotron, and direct these into the plasma.

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II.3) Estimated date of publication of contract notice

1 February 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

