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Planning

## **CT Scanner**

AWE PLC

F01: Prior information notice

Prior information only

Notice identifier: 2023/S 000-029086

Procurement identifier (OCID): ocds-h6vhtk-040767

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## **Section I: Contracting authority**

### **I.1) Name and addresses**

AWE PLC

Room 20,Building F161.2 Atomic Weapons Establishment

READING

RG74PR

### **Contact**

AWE Procurement

### **Email**

[AWEProcurement@awe.co.uk](mailto:AWEProcurement@awe.co.uk)

### **Country**

United Kingdom

**Region code**

UKJ11 - Berkshire

**Justification for not providing organisation identifier**

Not on any register

**Internet address(es)**

Main address

[www.aweplc.co.uk](http://www.aweplc.co.uk)

**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**

Defence

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## **Section II: Object**

### **II.1) Scope of the procurement**

#### **II.1.1) Title**

CT Scanner

Reference number

2575

#### **II.1.2) Main CPV code**

- 38520000 - Scanners

#### **II.1.3) Type of contract**

Supplies

#### **II.1.4) Short description**

AWE is looking to engage with the market to understand supplier's capability to support the procurement of an integrated, cabinet based, X-ray Radiography and 3-Dimensional (3D) Computed Tomography (CT) system.

The procurement must meet the following key specifications:

- As described in 2.4
- Space constraints - Available space must fit within an overall cylindrical space envelope of at least 280mm diameter and 535mm height.

#### **II.1.5) Estimated total value**

Value excluding VAT: £800,000

#### **II.1.6) Information about lots**

This contract is divided into lots: No

### **II.2) Description**

### **II.2.3) Place of performance**

NUTS codes

- UKJ - South East (England)

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

**\*\*This notice is for market engagement only and is not a call for competition\*\***

The Atomic Weapons Establishment (AWE) is an arms-length body of the Ministry of Defence employing around 6,000 people headquartered in Aldermaston, Berkshire.

For more than 70 years, AWE has supported the UK Government's nuclear defence strategy and the Continuous At Sea Deterrent. We also use our nuclear know-how and technical expertise to provide innovative solutions that support the UK's counter-terrorism and nuclear threat reduction activities.

We work at the extremes of science and engineering to understand the performance of nuclear warheads, and assess the safety, security and effectiveness of the stockpile in the absence of live testing.

Remarkable science, technology, engineering, and maths integrate across the lifecycle of the warhead: from initial concept and design to final decommissioning and disposal. Experts in their fields work together in unique and advanced experimental facilities, to perform cutting edge experiments.

AWE is looking to engage with the market to understand supplier's capability to support the procurement of an integrated, cabinet based, X-ray Radiography and 3-Dimensional (3D) Computed Tomography (CT) system.

The following table describes the machine specifications that this procurement must meet

The system shall have the following capabilities/features:

1. For delivery and installation the system will need to pass through an opening 2000mm in width and 2130mm in height
2. Capable of performing 3D CT data acquisition and reconstruction from Regions of Interest (ROI) within the component cylindrical envelope positioned in a vertical orientation
3. Required to clearly resolve features of 0.01mm or less within a 3D CT data acquired from a 5mm diameter stainless steel tube, at least 260mm in length, that is located within its own 15mm diameter envelope positioned at an offset of 25mm from the center line of the cylinder

in the upper region of the overall space envelope

4. Required to clearly resolve features of 0.01mm or less from within 3D CT data acquired from the 5mm diameter stainless steel tube at a brazed joint featuring a 72% Silver/28% Copper (CuSil) braze material
5. Be capable of acquiring 3D CT data from the offset 5mm diameter stainless steel tube where it interfaces with a domed feature, in the lower region of the overall space envelope, when the entire assembly is inclined approximately 7 degrees from the vertical. It shall be possible to clearly resolve features of 0.01mm or less from within the reconstructed CT volume of this interface
6. Be capable of performing high resolution direct radiography of a circular feature at the circumference of the 280mm diameter cylindrical envelope in both a vertical and horizontal orientation. At these positions the system shall be capable of resolving individual features of 0.5mm diameter, and clusters of 0.1mm diameter features within 0.25mm of mm spacing, through the equivalent of 30mm of aluminum
7. Be capable of displaying real-time (12.5 frames/second or faster) 2D radiographic images, without pixel binning of the X-ray detector
8. Be able to capture a CT data set comprising a minimum of 5655 projections captured through a full 360o rotation, each of a 2-frame average, 0.5ms exposure, 1800 x 1800 pixels and 16-bit greyscale in under 2.5 hours including reference image capture, image correction, X-ray source stabilisation and writing of information to any computer storage device
9. Be capable of reconstructing a CT data set comprising a minimum of 5655 projections of 1800 x 1800 pixels and 16-bit greyscale into a single 1800 x 1800 x 1800 voxel, 32-bit 3D CT Volume in under 15 minutes including set up time and writing of information to any computer storage device
10. Be supplied with a Volumetric CT Data Visualisation and Analysis software package
11. If the systems incorporate a vacuum system this shall be oil free
12. The system shall comply with the Ionising Radiation Regulations 2017 (IRR17), follow the AWE

Design of Radiographic Enclosures: Radiation Protection Principles and Guidance, Issue 4.0,

14/02/2023 Ref: AWE/MAN.SYS/6892, and have full UKCA certification in accordance with:

Supply of Machinery (Safety) Regulations 2008

Electrical Equipment (Safety) Regulations 2016

Electromagnetic Compatibility Regulations 2016

\*\*\*EU Council Directive 2013/59/EURATOM\*\*\* OR UK Equivalent Regulation when it becomes available.

The size of the machine is also vital to the procurement. Space constraints - Available space must fit within an overall cylindrical space envelope of at least 280mm diameter and 535mm height.

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

30 November 2023

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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

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## Section VI. Complementary information

### VI.3) Additional information

To support the procurement understand how the market can support and fulfil AWE requirements, AWE is requesting interested parties to email their relevant offering to [AWEProcurement@awe.co.uk](mailto:AWEProcurement@awe.co.uk), including in the title of your email submission "CT SCANNER".

The nature of this PIN is such that AWE intends to operate restrictions within the relevant procurement regulations in order to protect essential national security interests. If an economic operator has connections with any hostile entity or foreign states which are deemed by AWE to pose a risk to the UK's national security interests or is otherwise considered not to possess the reliability necessary to exclude risks to the security of the United Kingdom, AWE reserves its right to exclude them from this exercise.

In issuing this PIN and engaging with the market, the AWE is not committing to conduct any procurement in relation to this Programme. Equally non-participation in this Market Engagement will not be taken into account in any future procurement activities and will not preclude any organisation from submitting a tender in any future competitions.

Note: The nature of this contract is such that the award will be subject to supplier's passing AWE's security requirements as dictated by its site licenses.