Planning

Fusion Futures: Uncertainty Quantification for Plasma Control Frameworks

United Kingdom Atomic Energy Authority

F01: Prior information notice
Prior information only
Notice identifier: 2024/S 000-017610
Procurement identifier (OCID): ocds-h6vhtk-046e02
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Section I: Contracting authority

I.1) Name and addresses

United Kingdom Atomic Energy Authority

Culham Campus

Abingdon

OX14 3DB

Contact

Charlotte Byrne

Email

charlotte.byrne@ukaea.uk

Country

United Kingdom

Region 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=82440&B=UKAEA

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

Fusion Futures: Uncertainty Quantification for Plasma Control Frameworks

Reference number

T/CB085/24

II.1.2) Main CPV code

- 72266000 - Software consultancy services

II.1.3) Type of contract

Services

II.1.4) Short description

UKAEA wishes to engage with potential prime contractors, for the provision of research and development consultancy services to the UKAEA.

The project seeks to apply state of the art methods and techniques from the field of uncertainty quantification to the development of real-time plasma control systems.

The goal is to develop specific software components which must integrate effectively with existing control frameworks developed in C++. There is some flexibility in exactly how the new capabilities should be interfaced but the resulting system is required to have highly deterministic behaviour with bounded latency and jitter suitable for deployment in the plasma control environment.

II.1.5) Estimated total value

Value excluding VAT: £150,000

II.1.6) Information about lots

This contract is divided into lots: No

II.2) Description

II.2.2) Additional CPV code(s)

- 72200000 - Software programming and consultancy services
- 72220000 - Systems and technical consultancy services
- 72227000 - Software integration consultancy services

II.2.3) Place of performance

NUTS codes

- UKJ14 - Oxfordshire
- UK - United Kingdom

Main site or place of performance

OX14 3DB

II.2.4) Description of the procurement

UKAEA wishes to engage with potential prime contractors, for the provision of research and development consultancy services to the UKAEA.

The project seeks to apply state of the art methods and techniques from the field of uncertainty quantification to the development of real-time plasma control systems.

The goal is to develop specific software components which must integrate effectively with existing control frameworks developed in C++. There is some flexibility in exactly how the new capabilities should be interfaced but the resulting system is required to have highly deterministic behaviour with bounded latency and jitter suitable for deployment in the plasma control environment.

The focus is on developing practical components using agile methodology and able to deliver production software quickly. As such, the requirement is to identify potential suppliers capable of demonstrating not only competencies in the specified fields, but experience of deploying solutions in demanding environments. Ideally this would include awareness or experience in fusion control. Equivalent alternative domain knowledge and appropriate subject matter expertise would be considered.

UKAEA will be able to provide support on many aspects of plasma control and on the software frameworks used in fusion. A potential supplier must bring expertise in uncertainty quantification and have sufficient complementary skills to be able to effectively engage with the UKAEA controls team.

After the engagement exercise, UKAEA intend to issue an Invitation to Tender through the EU Supply and Find a Tender portals (replacement to Tenders Electronic Daily) to procure services for design and development through competitively tendered contracts.

II.3) Estimated date of publication of contract notice

30 September 2024

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

Section VI. Complementary information

VI.3) Additional information

Webinar to be held 4th July 2024, registration link can be found in supporting documents.