Tender

Strategic Support Framework for Spent Fuel

National Nuclear Laboratory

F21: Social and other specific services – public contracts
Prior information notice with call for competition
Notice identifier: 2022/S 000-004868
Procurement identifier (OCID): ocds-h6vhtk-0319a0
Published 21 February 2022, 5:12pm

Section I: Contracting authority

I.1) Name and addresses

National Nuclear Laboratory

5th Floor Chadwick House, Birchwood Park

Warrington

WA3 6AE

Contact

Rabia Khan

Email

Rabia.khan@uknnl.com

Country

United Kingdom

NUTS code

UK - United Kingdom

National registration number

3857752

Internet address(es)

Main address

https://www.gov.uk/government/case-studies/shared-services-alliance-ssa-for-nuclear-decommissioning-estate

I.3) Communication

The procurement documents are available for unrestricted and full direct access, free of charge, at

https://sharedsystems.eu-supply.com/app/rfq/rwlentrance_s.asp?PID=15533&B=SELLAFIELD

Additional information can be obtained from the above-mentioned address

Tenders or requests to participate must be submitted electronically via

https://sharedsystems.eu-supply.com/app/rfq/rwlentrance_s.asp?PID=15533&B=SELLAFIELD

Tenders or requests to participate must be submitted to the above-mentioned address

I.4) Type of the contracting authority

Body governed by public law

I.5) Main activity

Other activity

Nuclear Decommissioning

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

Strategic Support Framework for Spent Fuel

Reference number

NNLC181F

II.1.2) Main CPV code

- 98113100 - Nuclear safety services

II.1.3) Type of contract

Services

II.1.4) Short description

Tender for a multi-Lot framework agreement to provide a compliant route to market for Strategic Support for Spent Fuels.

II.1.5) Estimated total value

Value excluding VAT: £2,000,000

II.1.6) Information about lots

This contract is divided into lots: Yes

Tenders may be submitted for all lots

II.2) Description

II.2.1) Title

Measurement and Metrology Services

Lot No

1

II.2.2) Additional CPV code(s)

- 71337000 - Corrosion engineering services
- 73100000 - Research and experimental development services
- 98113100 - Nuclear safety services

II.2.3) Place of performance

NUTS codes

- UK - United Kingdom

Main site or place of performance

Warrington

II.2.4) Description of the procurement

The measurement and metrology services lot covers the adaption or development of measurement systems for application in:

• A heavily shielded, irradiated fuel examination facility, where measurements are undertaken directly on irradiated materials out of their storage context. Adaption may require deployment into high radiation environments or may require adaptation to be able to deploy them across a thick concrete wall into a high radiation environment with limited access and limited ability to manipulate items.

• Pond storage environments: where irradiated fuel is stored in fixed geometries underwater, with restricted access

• Dry storage environments, where fuel is contained within sealed containment systems. Monitoring may be focussed on the integrity of the containment system or conditions inside the container.

II.2.6) Estimated value

Value excluding VAT: £2,000,000

II.2.7) Duration of the contract or the framework agreement

Duration in months

48

II.2.13) Information about European Union Funds

The procurement is related to a project and/or programme financed by European Union funds: No

II.2.14) Additional information

Full details can be found in Appendix D Procurement Specification.

II.2) Description

II.2.1) Title

Corrosion Science and Electrochemistry

Lot No

2

II.2.2) Additional CPV code(s)

- 09340000 - Nuclear fuels
- 73100000 - Research and experimental development services
- 98113100 - Nuclear safety services

II.2.3) Place of performance

NUTS codes

- UK - United Kingdom

II.2.4) Description of the procurement

The principal topic areas of interest in relation to this topic area are listed below and support with experimental works, technique demonstration and modelling are of interest:

• Environmentally assisted stress corrosion cracking of irradiated high Ni Austenitic stainless steel (AGR cladding) in pond water

• Environmentally assisted stress corrosion cracking of austenitic stainless steels in air, associated with long term fuel and nuclear material dry storage canisters

• Corrosion of fuel materials in pond water, disposal contexts and nominally dry gasses. Whilst the main focus is on uranium oxide and U:Pu mixed oxide fuels, there is also interest in work on other fuels, as note above

• Corrosion of fuel cladding materials, as detailed above, in pond water, disposal contexts and nominally dry gasses.

• Oxidation of fuel and cladding materials at low temperatures (e.g. below about 200°C) over very long timescales.

II.2.6) Estimated value

Value excluding VAT: £2,000,000

II.2.7) Duration of the contract or the framework agreement

Duration in months

48

II.2.13) Information about European Union Funds

The procurement is related to a project and/or programme financed by European Union funds: No

II.2.14) Additional information

Full details can be found in Appendix D Procurement Specification

II.2) Description

II.2.1) Title

Materials and Engineering Science

Lot No

3

II.2.2) Additional CPV code(s)

- 09340000 - Nuclear fuels
- 98113100 - Nuclear safety services
- 73100000 - Research and experimental development services

II.2.3) Place of performance

NUTS codes

- UK - United Kingdom

II.2.4) Description of the procurement

The focus on this area is to undertake non-active work on simulant materials or undertake modelling of aspects of spent fuels that affect their behaviour in long term storage, although consideration of preparation for disposal is also relevant.

Areas of particular interest are:

• Migration of water into failed fuel during pond storage. This may include fuel in a range of conditions from largely intact fuel pins, to short sections of fuel, fuel fragments and fuel corrosion products.

• Migration of water out of failed fuel in storage or drying at a range of potential pressures and temperatures

• Radiolysis of /water vapour and hydrated compounds associated with failed fuel and corrosion products in wet and nominally dry conditions r

• Evolution of fuel and fuel corrosion products during storage, including dry, damp and aqueous environments, and during drying under vacuum or elevated temperatures

• Interaction and behaviour of radionuclides released as a result of fuel/cladding corrosion with the storage environment

• Materials engineering associated with hydrogen management, in particular to control pressurisation or explosion risk.

• Options for the stabilisation and treatment of severely damaged and corroded fuels.

Support is sought in relation to undertaking experimental work and modelling.

II.2.6) Estimated value

Value excluding VAT: £2,000,000

II.2.7) Duration of the contract or the framework agreement

Duration in months

48

II.2.13) Information about European Union Funds

The procurement is related to a project and/or programme financed by European Union funds: No

II.2.14) Additional information

Full details can be found in Appendix D Procurement Specification

II.2) Description

II.2.1) Title

Irradiation Facilities and Particle Accelerators

Lot No

4

II.2.2) Additional CPV code(s)

- 09340000 - Nuclear fuels
- 98113100 - Nuclear safety services
- 73100000 - Research and experimental development services

II.2.3) Place of performance

NUTS codes

- UK - United Kingdom

II.2.4) Description of the procurement

Access to irradiation facilities is required in relation to three principal requirements:

• Understanding the effects of irradiation on materials, particularly in relation to radiolysis effects. Current areas of work are related to high pH aqueous conditions, however irradiation of low humidity air and conditions relevant to disposal are also of interest.

• Neutron imaging techniques for the detection and mapping of hydrogen in fuel storage systems (in-situ) and for detection of water in irradiated fuels (ex-situ).

• Beam line characterisation of the chemistry of nuclear materials undergoing corrosion or speciation in environments of interest (principally pond storage and disposal) using spectroscopy techniques e.g. XAFS / XANES.

II.2.6) Estimated value

Value excluding VAT: £2,000,000

II.2.7) Duration of the contract or the framework agreement

Duration in months

48

II.2.13) Information about European Union Funds

The procurement is related to a project and/or programme financed by European Union funds: No

II.2.14) Additional information

Full details can be found in Appendix D Procurement Specification.

Section III. Legal, economic, financial and technical information

III.1) Conditions for participation

III.1.4) Objective rules and criteria for participation

List and brief description of rules and criteria

This is an Open Procedure to establish a multi Lot framework agreement for Strategic Support for Spent Fuels. Full details of the tender and award criteria can be found in the ITT documentation attached.

III.2) Conditions related to the contract

III.2.2) Contract performance conditions

Any services, projects or contracts delivered under this framework will be performed in the United Kingdom.

Section IV. Procedure

IV.1) Description

IV.1.1) Form of procedure

Open procedure

IV.1.3) Information about a framework agreement

The procurement involves the establishment of a framework agreement

IV.1.11) Main features of the award procedure

Full details of the award criteria can be found in the ITT documentation and ITT guidance notes. Tenderers should read all documentation provided before they submit a bid for this tender.

IV.2) Administrative information

IV.2.2) Time limit for receipt of expressions of interest

Date

31 March 2022

Local time

5:00pm

IV.2.4) Languages in which tenders or requests to participate may be submitted

English

Section VI. Complementary information

VI.2) Information about electronic workflows

Electronic ordering will be used

Electronic invoicing will be accepted

Electronic payment will be used

VI.3) Additional information

Full details of the award criteria can be found in the ITT documentation and ITT guidance notes. Tenderers should read all documentation provided before they submit a bid for this tender.

VI.4) Procedures for review

VI.4.1) Review body

Royal Courts of Justice

Strand

London

London

Country

United Kingdom

Internet address

http://www.justice.gov.uk

VI.4.2) Body responsible for mediation procedures

Royal Courts of Justice

Strand

London

London

Country

United Kingdom

Internet address

http://www.justice.gov.uk

VI.4.3) Review procedure

Precise information on deadline(s) for review procedures

Precise information on deadline(s) for review procedures:

Any appeals should be promptly brought to the attention of the contact specified in Section I above, and will be dealt with in accordance with the requirements of the Public Contracts Regulations 2015. Any appeals must be brought within the timescales specified by the applicable law, including without limitation, the Public Contracts Regulations 2015. In accordance with the Public Contracts Regulations 2015, the Contracting Authority will also incorporate a minimum 10 calendar day standstill period from the date information on award of contract is communicated to tenderers.

VI.4.4) Service from which information about the review procedure may be obtained

Royal Courts of Justice

London

Country

United Kingdom