

Germany-Geesthacht: Diffraction apparatus
OJ S 169/2022 02/09/2022
Contract award notice
Supplies

Legal Basis:

Directive 2014/24/EU

Section I: Contracting authority

I.1. Name and addresses

Official name: Helmholtz-Zentrum hereon GmbH

Postal address: Max-Planck-Straße 1

Town: Geesthacht

NUTS code: DEF06 Herzogtum Lauenburg

Postal code: 21502

Country: Germany

Contact person: Vergabestelle

E-mail: einkauf@hereon.de

Telephone: +49 4152870

Fax: +49 415287-1750

Internet address(es):

Main address: <https://www.hereon.de>

I.4. Type of the contracting authority

Other type: non-profit making research institute with limited liability

I.5. Main activity

Other activity: scientific spectrum: high-performance materials, processes and environmentally friendly technologies for mobility, new energy systems and biomaterials

Section II: Object

II.1. Scope of the procurement

II.1.1. Title

1 Neutron Optics Assembly NOA (Neutrons) for BEER / ESS - in 3 Lots

Reference number: 2022/03-50520

II.1.2. Main CPV code

38530000 Diffraction apparatus

II.1.3. Type of contract

Supplies

II.1.4. Short description

1 Neutron Optics Assembly (NOA) for BEER / ESS, Lot 1 - 3

The European Spallation Source (ESS) ERIC (European Research Infrastructure Consortium) as joint European project is a large scale, multinational research facility being built in Lund, Sweden, with a data management and software centre in Copenhagen, Denmark.

The European Commission has, by decision (EU) 2015/1478 of 19 August 2015, established ESS as responsible for constructing, operating, developing and decommissioning the Facility. The Swedish and Danish Governments have agreed to host ESS with Sweden as the host member state in accordance with Regulation (EC) No 723/2009.

The facility will be a world-leading centre for materials research and life sciences using neutrons and will host the world's most powerful neutron source.

BEER is a time-of-flight engineering diffractometer being built at the ESS.

BEER is intended to enable studies of condensed matter by observing the scattering of thermal or cold neutrons by a specimen.

The unique feature of BEER will be that a large number of short pulses are extracted from the long pulse of the ESS, which is unique after its completion, resulting in significantly higher neutron flux at the sample and thus higher intensity and broader resolution range while providing comprehensive detector coverage.

The Neutron Optical Assemblies (NOA) make part of the beam transport and conditioning system:

The NOA in the common ESS bunker are responsible for the efficient extraction of the neutrons from the cold and thermal ESS moderators as well as their efficient transport through the common ESS bunker.

The neutron optical assemblies shall be installed inside the bunker and the bunker wall, respectively.

In this context Hereon is issuing a tender for the neutron optics assemblies (NOA) in the common ESS bunker. It consist of the four parts divided into three lots:

1. The Bridge Beam Guide Optical assembly (BBGOA) and the in-bunker neutron optic assembly (IBNOA)
2. The bi-spectral switch assembly (GSW)
3. The bunker wall insert (BWI)

The Scope of Work includes all necessary tasks and deliverables for the operation of the NOA as defined in the requirement specification:

Lot 1 - 3:

I. Preliminary Design

II. Design

III. Production and assembly

IV. Factory acceptance tests (FAT)

V. Delivery to ESS storage facility

just IBNOA (part of Lot 1) and Lot 2:

VI. Installation and alignment within the common ESS bunker

just Lot 3:

VI. Assembly and alignment of the BWI optics + vacuum units

Lot 1 - 3

VII. Site acceptance test (SAT) of the complete systems at ESS

VIII. Documentation in electronic and paper copy, including quality assurance documentation

II.1.6. Information about lots

This contract is divided into lots: yes

II.1.7. Total value of the procurement

Value excluding VAT: 1 230 030,00 EUR

II.2. Description

II.2.1. Title

NOA (Neutrons) BEER / ESS Lot 1: Bridge Beam Guide Optical Assembly (BBGOA) and In-Bunker Neutron Optic Assembly (IBNOA)

Lot No: 1

II.2.2. Additional CPV code(s)

38530000 Diffraction apparatus, 38000000 Laboratory, optical and precision equipments (excl. glasses)

II.2.3. Place of performance

NUTS code: SE224 Skåne län

Main site or place of performance: ESS - European Spallation Source Transportgatan 5 F03 / Gate E 22484 SWE - Lund (Sweden)

II.2.4. Description of the procurement

Lot 1:

Bridge Beam Guide Optical Assembly (BBGOA) and In-Bunker Neutron Optic Assembly (IBNOA)

Bridge Beam Guide Optical Assembly (BBGOA): It will be installed by ESS in the "light shutter" assembly following the monolith shielding around the target. For the BBGOA the ESS design group is providing the outer pressure vessel and alignment frame, the neutron guide belong to the responsibility of the BEER team and is part of this tender. The nominal length of the neutron guide is 483 mm. The vertical profile of the BBGOA shall follow an ellipse with long axis 28846 mm, short axis 80 mm and center at 15000 mm from ISCS. The geometry could be simplified by long straight sections with a length ≥ 200 mm.

The cross sections for first entrance and last exit are:

Entrance: Height (mm) 59.76 x Width (mm) 29.87 / Distance (mm) 5410.84

Exit: Height (mm) 62.04 x Width (mm) 22.00 / Distance (mm) 5893.84

The substrate material shall be aluminum with a thickness of 10mm. The coatings shall have the following m values:

Top/bottom: $m=4$; Left/right: $m=2.5$

In-Bunker Neutron Optic Assembly (IBNOA):

the neutron guide system that follows the bi-spectral switch and spans to the inner wall of the common bunker.

The neutron optic assembly of the IBNOA starts at about 5.97 m from the moderator behind the bi-spectral switch assembly and ends at the inner bunker wall at about 24.5 m.

It consists of 10 sub-units with different length which are specified in detail in Annex 2 (specification). The total nominal installed length of the neutron guides should be 17899.2 mm.

The vertical profile of units 1-9 (total nominal length 3401.2) of the IBNOA shall follow an ellipse with long axis 28846 mm, short axis 80 mm and first focus at 577 mm.

The horizontal profile shall be straight parallel. The vertical profile of unit 10 (total nominal length 4999 mm) shall follow the same ellipse. While the horizontal profile shall follow a curve with a curvature radius of $R= -2$ km. The horizontal profile of unit 11 (total nominal length 9499 mm) shall follow the same curvature while the vertical geometry shall be straight parallel. The geometry of each unit can be simplified by up to 500 mm long straight sections.

The cross sections for the first entrance and last exit are:

Entrance(Unit 1): Height (mm) 62.37 x Width (mm) 20.00 / Distance (mm) 5410.84

Exit (Unit 9): Height (mm) 75.01 x Width (mm) 20.00 / Distance (mm) 5893.84
Entrance(Unit 10): Height (mm) 75.04 x Width (mm) 20.00 / Distance (mm)5410.84
Exit (Unit 10): Height (mm) 80.00 x Width (mm) 20.00 / Distance (mm) 5893.84
Entrance(Unit 11): Height (mm) 75.04 x Width (mm) 20.00 / Distance (mm) 5410.84
Exit (Unit 11): Height (mm) 80.00 x Width (mm) 20.00 / Distance (mm) 5893.84

The substrate material shall be aluminum with a thickness of 10mm. The coatings shall have the following m values:

Unit 1-9: Top/bottom: m=32; Left/right: m=4

Unit 10: Top/bottom: m=3; Left/right: m=3/2.5

Unit 11: Top/bottom: m=2; Left/right: m=3/2.5

The IBNOA shall be delivered with vacuum vessel and alignment features. For unit 10 and 11 a mechanical support shall be delivered.

Further BBGOA, IBNOA and and project related requirements for this tender regarding (for example, but not limited to:)

- Scope of Work and Supply
- Remuneration
- Declaration of Conformity
- Warranty Period
- Communication during Tender Process
(Alternative solutions, Tender Presentation, Offer technical Report)
- Product (f.e. General Information, Installation Context, System Interfaces Points, Definitions, Functional Requirements, Allowed Materials, Operation Requirements, Integration, Specific Requirements, Acceptance Tests, Technical Documentation)
- Project Management
- Overview of Project Phases
- Quality Assurance and
- Product Documentation
- Contractual Agreements between Hereon and Subcontractor

are specified in the enclosed documents

"2000084509 Agreement Subcontractor" and its Annexes

"2000084509 Annex 1" (ESS Standards)

"2000084509 Annex 2" (Specification)

"2000084509 Annex 3" (Form Monthly Report)

II.2.5. Award criteria

Quality criterion - Name: Quality and Concept / Weighting: 30

Price - Weighting: 70.00

II.2.11. Information about options

Options: yes

Description of options:

Pursuant to sec. 14 para. 4 no. 5 and 9 VgV (Procurement Ordinance - Vergabeverordnung), the right is reserved to award the repetition of similar services and/or deliveries corresponding

to the basic project in a negotiated procedure without a competitive tender under the same conditions as the basic contract. Further information on the option of hourly paid work is contained in the procurement documents and the contract.

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

II.2. Description

II.2.1. Title

NOA (Neutrons) BEER / ESS Lot 3: Bunker Wall Insert (BWI)
Lot No: 3

II.2.2. Additional CPV code(s)

38530000 Diffraction apparatus, 38000000 Laboratory, optical and precision equipments (excl. glasses)

II.2.3. Place of performance

NUTS code: SE224 Skåne län

Main site or place of performance: ESS - European Spallation Source Transportgatan 5 F03 / Gate E 22484 SWE - Lund (Sweden)

II.2.4. Description of the procurement

Lot 3: Bunker Wall Insert (BWI)

The neutron optics assembly inside the common ESS bunker wall.

The BWI assembly starts at the inner bunker wall at about 24.5m and continues to the outer wall at about 28.0 m. It consist of curved parallel guide segments.

The nominal installed length should be 3498mm. The vertical profile shall be straight parallel.

The horizontal profile of the BEER BWI shall follow a curve with a curvature radius of $R = -2\text{km}$.

The geometry can be simplified by 200 to 500mm long straight sections.

Cross sections for first entrance and last exit are:

Entrance Height (mm) 80.0 x Width (mm) 20.0 / Distance (mm) 24500

Exit Height (mm) 80.0 x Width (mm) 20.0 / Distance (mm) 27998

The substrate material shall be copper the thickness is specified in detail in Annex 2 (specification).

The coatings shall have the following m values:

Top/bottom: $m=2$; Left/right: $m=3/2.5$

The BWI shall be delivered with alignment features and a mechanical for the out-of-bunker site.

Further BWI and project related requirements for this tender regarding (for example, but not limited to:)

- Scope of Work and Supply
- Remuneration
- Declaration of Conformity
- Warranty Period

- Communication during Tender Process

(Alternative solutions, Tender Presentation, Offer technical Report)

- Product (f.e. General Information, Installation Context, System Interfaces Points, Definitions,

Functional Requirements, Allowed Materials, Operation Requirements, Integration, Specific Requirements, Acceptance Tests, Technical Documentation)

- Project Management
- Overview of Project Phases
- Quality Assurance and
- Product Documentation
- Contractual Agreements between Hereon and Subcontractor

are specified in the enclosed documents

"2000084509 Agreement Subcontractor" and its Annexes

"2000084509 Annex 1" (ESS Standards)

"2000084509 Annex 2" (Specification)

"2000084509 Annex 3" (Monthly Report)

II.2.5. Award criteria

Quality criterion - Name: Quality + Concept / Weighting: 30

Price - Weighting: 70.00

II.2.11. Information about options

Options: yes

Description of options:

Pursuant to sec. 14 para. 4 no. 5 and 9 VgV (Procurement Ordinance - Vergabeverordnung), the right is reserved to award the repetition of similar services and/or deliveries corresponding to the basic project in a negotiated procedure without a competitive tender under the same conditions as the basic contract. Further information on the option of hourly paid work is contained in the procurement documents and the contract.

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

Section IV: Procedure

IV.1. Description

IV.1.1. Type of procedure

Open procedure

IV.1.3. Information about a framework agreement or a dynamic purchasing system

IV.1.8. Information about the Government Procurement Agreement (GPA)

The procurement is covered by the Government Procurement Agreement: yes

IV.2. Administrative information

IV.2.1. Previous publication concerning this procedure

Notice number in the OJ S: [2022/S 051-132314](#)

IV.2.8. Information about termination of dynamic purchasing system

IV.2.9. Information about termination of call for competition in the form of a prior information notice

Section V: Award of contract

Lot No: 1

Title:

Auftragsvergabe S-DH GmbH

A contract/lot is awarded: yes

V.2. Award of contract

V.2.1. Date of conclusion of the contract

25/08/2022

V.2.2. Information about tenders

Number of tenders received: 1

Number of tenders received from SMEs: 1

Number of tenders received from tenderers from other EU Member States: 0

Number of tenders received from tenderers from non-EU Member States: 0

Number of tenders received by electronic means: 1

The contract has been awarded to a group of economic operators: no

V.2.3. Name and address of the contractor

Official name: S-DH GmbH

Postal address: Siemensstraße 34

Town: Heidelberg

NUTS code: DE125 Heidelberg, Stadtkreis

Postal code: 69123

Country: Germany

E-mail: haese@s-dh.de

Telephone: +49 6221360250

Internet address: <https://www.s-dh.de/>

The contractor is an SME: yes

V.2.4. Information on value of the contract/lot

Total value of the contract/lot: 984 130,00 EUR

V.2.5. Information about subcontracting

Section V: Award of contract

Lot No: 3

Title:

Auftragsvergabe S-DH GmbH

A contract/lot is awarded: yes

V.2. Award of contract

V.2.1.

Date of conclusion of the contract

25/08/2022

V.2.2. Information about tenders

Number of tenders received: 1

Number of tenders received from SMEs: 1

Number of tenders received from tenderers from other EU Member States: 0

Number of tenders received from tenderers from non-EU Member States: 0

Number of tenders received by electronic means: 1

The contract has been awarded to a group of economic operators: no

V.2.3. Name and address of the contractor

Official name: S-DH GmbH

Postal address: Siemensstraße 34

Town: Heidelberg

NUTS code: DE125 Heidelberg, Stadtkreis

Postal code: 69123

Country: Germany

E-mail: haese@s-dh.de

Telephone: +49 6221360250

Internet address: <https://www.s-dh.de/>

The contractor is an SME: yes

V.2.4. Information on value of the contract/lot

Total value of the contract/lot: 245 900,00 EUR

V.2.5. Information about subcontracting**Section VI: Complementary information**

VI.3. Additional information

Bekanntmachungs-ID: CXU1YYDYYUQ

VI.4. Procedures for review**VI.4.1. Review body**

Official name: Vergabekammer des Bundes beim Bundeskartellamt

Postal address: Villemomblerstraße76

Town: Bonn

Postal code: 53113

Country: Germany

E-mail: vk@bundeskartellamt.bund.de

Telephone: +49 2289499-0

Fax: +49 2289499-163

VI.4.3. Review procedure

Precise information on deadline(s) for review procedures:

Precise information on the time limits for lodging appeals:

- Section 134 (2) of the GWB - information and waiting period obligation: a contract may not be concluded until 15 calendar days after the information pursuant to Section 134 (1) of the GWB has been sent. If the information is sent electronically or by fax, the period is reduced to 10 calendar days. The period shall commence on the day following the dispatch of the information

by the contracting entity; the day of receipt by the tenderer and candidate concerned shall be irrelevant.

- The award procedure is subject to the provisions on review proceedings before the Public Procurement Tribunal (Section 155 et seq. GWB). Pursuant to Section 160 (3) GWB, the application is inadmissible to the extent that:

1. the applicant has recognized the asserted infringement of procurement regulations prior to filing the application for review and has not objected to it vis-à-vis the contracting entity within a period of 10 calendar days; the expiry of the period pursuant to Section 134 para. 2 GWB shall remain unaffected,
2. violations of procurement regulations which are identifiable on the basis of the notice are not notified to the contracting authority at the latest by the expiry of the period for application or submission of bids specified in the notice,
3. violations of procurement regulations which are only recognizable in the award documents are not notified to the contracting entity at the latest by the expiry of the period for application or submission of bids,
4. more than 15 calendar days have elapsed since receipt of the contracting entity's notification that it does not intend to remedy a complaint. The preceding sentence shall not apply in the case of an application for a declaratory decision on the invalidity of the contract pursuant to Section 135 para. 1 no. 2 GWB. § Section 134 (1) sentence 2 GWB shall remain unaffected.

VI.5. Date of dispatch of this notice

29/08/2022