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Contract

9000711 - Supply of Booster & Quadrupole Power Converters

Diamond Light Source Ltd

F03: Contract award notice
Notice identifier: 2024/S 000-028454
Procurement identifier (OCID): ocds-h6vhtk-044579
Published 5 September 2024, 2:49pm

Section I: Contracting authority

I.1) Name and addresses

Diamond Light Source Ltd

Harwell Science and Innovation Campus

Didcot

OX11 0DE

Contact

Debbie Pryor

Email

procurement@diamond.ac.uk

Telephone

+44 1235567575

Country

United Kingdom

Region code

UKJ14 - Oxfordshire

Companies House

4375679

Internet address(es)

Main address

https://www.diamond.ac.uk

I.4) Type of the contracting authority

Body governed by public law

I.5) Main activity

Other activity

Scientific Research

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

9000711 - Supply of Booster & Quadrupole Power Converters

Reference number

9000711

II.1.2) Main CPV code

- 31121110 - Power converters

II.1.3) Type of contract

Supplies

II.1.4) Short description

Located on the Harwell Science and Innovation Campus in Oxfordshire, Diamond Light Source (DLS) is a leading-edge facility for science, engineering and innovation. Diamond allows researchers from academia and industry to investigate the structure and behaviour of the world around us at the atomic and molecular level.

To continue delivering the world-changing science that Diamond enables, the facility is being upgraded to Diamond-II, a co-ordinated programme of development that combines a major

machine upgrade with new instruments and complementary improvements to optics, detectors, sample environment and delivery capabilities, and computing, as well as integrated and correlative methods. This will be transformative in speed and spatial resolution and will offer users streamlined access to enhanced instruments for life and physical sciences.

The subject of this call for tender are the power converters for the Booster BF and quadrupole magnets as indicated below.

BF

Number of Magnets: 36

Connection Arrangement: Series

Number of Power Converters: 1

Quadrupole

Number of Magnets: 4 per converter

Connection Arrangement: Series

Number of Power Converters: 5

II.1.6) Information about lots

This contract is divided into lots: No

II.1.7) Total value of the procurement (excluding VAT)

Value excluding VAT: 398,740 EUR

II.2) Description

II.2.3) Place of performance

NUTS codes

- UKJ14 - Oxfordshire

II.2.4) Description of the procurement

Located on the Harwell Science and Innovation Campus in Oxfordshire, Diamond Light Source (DLS) is a leading-edge facility for science, engineering and innovation. Diamond allows researchers from academia and industry to investigate the structure and behaviour of the world around us at the atomic and molecular level.

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Number of Magnets: 4 per converter

Connection Arrangement: Series

Number of Power Converters: 5

The solution foreseen for both types of power converters is two quadrant H-Bridges fed from a DC bus/capacitor. The voltage on the capacitor is controlled by a boost regulator fed from

an AC/DC SMPS, as shown in Diagrams 1 and 2. This has the advantage of presenting a fairly constant load to the ac distribution system, with energy circulating between the DC bus

capacitor bank and magnets. The Booster Quadrupole power converters could have a common DC bus/capacitor and AC/DC SMPS. The contractor may propose an alternative arrangement. There will be three variants of the Booster Quadrupole power converters. They will all have the same power circuit, but two variants will have reduced current control ranges to achieve greater repeatability, resolution, and stability. This will be achieved by fitting different DCCTs and/or current sense resistors.

II.2.5) Award criteria

Quality criterion - Name: Technical Solution & Quality / Weighting: 50

Quality criterion - Name: Experience of modifying standard items to meeet customer requirements / Weighting: 5

Quality criterion - Name: Commercial / Weighting: 5

Quality criterion - Name: Delivery / Weighting: 5

Price - Weighting: 35

II.2.11) Information about options

Options: No

Section IV. Procedure

IV.1) Description

IV.1.1) Type of procedure

Open procedure

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: 2024/S 000-006974

Section V. Award of contract

Contract No

9000711

Title

Diamond-II Booster BF and Quadrupole Power Converters

A contract/lot is awarded: Yes

V.2) Award of contract

V.2.1) Date of conclusion of the contract

23 August 2024

V.2.2) Information about tenders

Number of tenders received: 4

Number of tenders received from SMEs: 4

Number of tenders received by electronic means: 4

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

V.2.3) Name and address of the contractor

Energy Technology S.R.L. (OCEM)

Valsamoggia

40056

Country

Italy

NUTS code

- IT - Italy

BO Italy

BO-495875

The contractor is an SME

Yes

V.2.4) Information on value of contract/lot (excluding VAT)

Total value of the contract/lot: 398,740 EUR

Section VI. Complementary information

VI.4) Procedures for review

VI.4.1) Review body

Diamond Light Source

Harwell Science and Innovation Campus

Didcot

OX11 0ED

Country

United Kingdom