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Contract

Design and build geothermal infrastructure for the UK Geoenergy Observatory at Cuningar Loop, Glasgow, UK

UK Research & Innovation

F03: Contract award notice

Notice identifier: 2021/S 000-012281

Procurement identifier (OCID): ocds-h6vhtk-029c9d

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Section I: Contracting authority

I.1) Name and addresses

UK Research & Innovation

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Country

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NUTS code

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Internet address(es)

Main address

www.ukri.org

I.4) Type of the contracting authority

Body governed by public law

I.5) Main activity

Other activity

Research

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

Design and build geothermal infrastructure for the UK Geoenergy Observatory at Cuningar Loop, Glasgow, UK

Reference number

UKRI-1107

II.1.2) Main CPV code

- 45000000 - Construction work

II.1.3) Type of contract

Works

II.1.4) Short description

Short description: The British Geological Survey (BGS) and the Natural Environment Research Council (NERC) are constructing a mine water geothermal research facility on the Cuningar Loop in east Glasgow as part of the UK Geoenergy Observatories project (from now on referred to as the 'Glasgow Observatory'). Both NERC and BGS form a part of the UK Research and Innovation (UKRI).

The tender is for the procurement of a supplier to provide the design and build support to BGS (the Client) in delivery of the geothermal infrastructure for the Glasgow Observatory.

The Contractor's main responsibilities will include but are not limited to: detailed design and construction of the works; testing and commissioning the works.

The supplier shall be appointed under an NEC4 ECC

II.1.6) Information about lots

This contract is divided into lots: No

II.2) Description

II.2.2) Additional CPV code(s)

- 45210000 - Building construction work
- 71541000 - Construction project management services
- 71500000 - Construction-related services
- 45100000 - Site preparation work
- 45120000 - Test drilling and boring work
- 45200000 - Works for complete or part construction and civil engineering work
- 45220000 - Engineering works and construction works
- 76300000 - Drilling services

II.2.3) Place of performance

NUTS codes

- UKM82 - Glasgow City

Main site or place of performance

Glasgow City

II.2.4) Description of the procurement

The supplier will develop the 'Detailed Design Specification' through collaboration with the Client, to deliver an engineering design for the bespoke research infrastructure that meets the science requirements within the specified budget. Assuming the design is accepted, the supplier will build the design such that the facility is 'research-ready'.

The geothermal infrastructure will comprise (but may not be limited to) the following:

1. Extend four of the mine-water borehole wellheads above ground level and construct a low brick wellhead chamber and associated pipework.
2. To complete the hydraulic and thermal design of a pumping main and reinjection main, associated manual valve work and other infrastructure. To excavate and install this pipe infrastructure in trenches.
3. To install a cable duct within the main pipework trench to be routed to a control panel at a heat centre at Site 1.
4. To select and install an electrical submersible pump, associated cabling and rising main in boreholes GGA05 and GGA07. Consideration should be given to the termination and support of these items through the upper wellhead flanged plate. A suitable valve arrangement and wellhead sensors are also to be incorporated into the design.
5. To design and install a reinjection main in boreholes GGA01 and GGA08, with a corresponding pressure-tight wellhead upper-flanged plate. A suitable valve arrangement and wellhead sensors are also to be incorporated into the design.
6. To install two access tubes in all four boreholes, one of which shall be installed with a sensor to determine and log downhole water head, temperature and electrical conductivity.
7. The well equipment and pipework shall be selected to deliver a variable flow rate up to a maximum of 12 L/s and down to a minimum of 3 L/s, while maintaining a positive gauge pressure of at least 1 bar throughout the entire pumping-heat exchange-reinjection main system.
8. The wellhead flange plates should be designed to accommodate both a reinjection main and a pump rising main in the future.
9. To select and install a "heat centre" within the Site 1 compound.
10. To select and install a reversible water-air chiller / heat pump adjacent to the heat centre, with a nominal maximum output of 200 kW in both heating and cooling mode.
11. To design and install a heat exchanger circuit in the heat centre. The circuit should

include three equally-sized shell-and-tube heat exchangers with a combined heat exchange capacity of 200 kW.

12. To design and install an insulated heat transfer fluid circuit connecting the heat exchangers to the heat pump / chiller unit, with temperature and pressure sensors, circulation pump, glycol pressure regulation and top-up equipment, any necessary thermal buffering, and a sampling tap for sampling the glycol.

13. To install monitoring equipment within the heat centre on the mine water circuit to include an electromagnetic flowmeter, chemical dosing pump, temperature, pressure and electrical conductivity sensors, and a sampling tap.

14. To equip the heat centre with a control panel / management system for receiving and logging signals from the various installed sensors, and also sending control signals to the submersible pumps and the heat pump/chiller.

15. To prepare full design, installation, operation and maintenance documentation for the infrastructure installed in this Contract.

16. To prepare a maintenance schedule for the facility.

17. Commission, test and demonstrate the facility.

18. To providing training on operating the system.

II.2.5) Award criteria

Quality criterion - Name: Quality / Weighting: 70

Cost criterion - Name: Price / Weighting: 30

II.2.11) Information about options

Options: No

II.2.13) Information about European Union Funds

The procurement is related to a project and/or programme financed by European Union funds: 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: [2021/S 000-005420](#)

Section V. Award of contract

A contract/lot is awarded: No

V.1) Information on non-award

The contract/lot is not awarded

No tenders or requests to participate were received or all were rejected

Section VI. Complementary information

VI.3) Additional information

To view this notice, please click here:

<https://ukri.delta-esourcing.com/delta/viewNotice.html?noticeId=597507760>

GO Reference: GO-202162-PRO-18335811

VI.4) Procedures for review

VI.4.1) Review body

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