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Planning

Mine Water Treatment Scheme Operational and Maintenance Contract

The Coal Authority

F01: Prior information notice

Prior information only

Notice identifier: 2022/S 000-019934

Procurement identifier (OCID): ocids-h6vhtk-035486

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Section I: Contracting authority

I.1) Name and addresses

The Coal Authority

200 Lichfield Lane

MANSFIELD

NG184RG

Contact

Gareth Billings

Email

garethbillings@coal.gov.uk

Country

United Kingdom

NUTS code

UKF15 - North Nottinghamshire

Internet address(es)

Main address

<https://www.gov.uk/government/organisations/the-coal-authority>

I.3) Communication

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

Environment

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

Mine Water Treatment Scheme Operational and Maintenance Contract

Reference number

CA18/2/1/70

II.1.2) Main CPV code

- 45259000 - Repair and maintenance of plant

II.1.3) Type of contract

Works

II.1.4) Short description

In partnership with the Department for Business, Energy and Industrial Strategy (BEIS), the Department for Environment, Food and Rural Affairs (DEFRA), the Environment Agency (EA), Scottish Environment Protection Agency (SEPA) and Natural Resources Wales (NRW), the Coal Authority delivers a program of Water Treatment facilities covering 70+ mine water treatment schemes across England, Scotland and Wales.

The Coal Authority seeks to let an Operational and Maintenance contract for the management of these sites, additional assets and over 700 data sampling points across England, Scotland and Wales. The existing contract ends on 31st December 2024

The duration of the contract is expected to be 10 years, potentially with break clauses during that time.

Mine water treatment schemes vary in design depending on the composition of the mine water, the land available, planning constraints and latest technology. The Coal Authority use standard designs where appropriate, however each site is individually customised to meet local requirements and constraints.

The contract will require operation & maintenance of sites

In addition to plant there is a mixture of buildings and infrastructure, storage facilities and

satellite offices to be managed. The sites are operational 24hrs a day, there is the requirement for stand-by support over evenings & weekends, including response times.

In excess of 30 new schemes are expected to be designed and built by the Coal Authority over the contract period, the design and build is excluded from the contract but expertise from the contractor may be sought to support and review the design for suitability from an operational viewpoint.

In a typical year the facilities treat over 128 billion litres of mine water and to ensure water quality is compliant with consents they consume over 150t of hydrated lime and over 50t of Limesol liquid lime, 3t of polymer, over 1000t of Sodium Hydroxide (47% mainly with some 20% concentration) and over 250t of Hydrogen Peroxide.

The service required under this contract is the operational, planned and preventative maintenance to the mine water treatment schemes, including but not limited to:

- Compliance with regulatory consents
- Adhering to health, safety and environmental standards
- Checks on treatment schemes, adjusting water levels to ensure optimum performance
- 24hr reactive response to incidents involving site failures
- Maintenance activities
- Pump lifts & equipment replacement
- Adjustments to the treatment process to ensure efficient use of chemicals & power
- Procuring chemicals & supervising delivery
- Water sampling & flow measuring data gathering/capture,
- Reporting on operational costs, safety statistics, risks and performance trends.

Additional services that could be instructed may include:

- Management of capital projects
- Managing, supervising & assisting in research and development projects
- Managing, supervising & operating pumping tests

The Coal Authority are committed to becoming a more sustainable organisation (environmental and social) & want to use our work to help deliver positive change in the communities we support. We have an ambition to be a net zero organisation by 2030 and we will continue to decarbonise our activities. The delivery of the services will be critical to achieve these ambitions & our sustainable targets.

The Coal Authority also wish to explore the option of a design build & operate model. As indicated above there is the potential for construction of 30 new schemes over this period and the refurbishment of current schemes that require civil engineering activities.

The anticipated time for the issue of tender documents is mid-June 2023.

II.1.6) Information about lots

This contract is divided into lots: No

II.2) Description

II.2.2) Additional CPV code(s)

- 45259000 - Repair and maintenance of plant

II.2.3) Place of performance

NUTS codes

- UKC - North East (England)
- UKD - North West (England)
- UKE - Yorkshire and the Humber
- UKF - East Midlands (England)
- UKG - West Midlands (England)
- UKK - South West (England)
- UKL - Wales
- UKM - Scotland

II.2.4) Description of the procurement

In partnership with the Department for Business, Energy and Industrial Strategy (BEIS), the Department for Environment, Food and Rural Affairs (DEFRA), the Environment Agency (EA), Scottish Environment Protection Agency (SEPA) and Natural Resources Wales (NRW), the Coal Authority delivers a program of Water Treatment facilities covering 70+ mine water treatment schemes across England, Scotland and Wales, ensuring that any accumulated mine water is responsibly treated before entering natural watercourses.

The Coal Authority's work to treat mine water has directly protected and improved over 400km of rivers, protected several important regional aquifers that provide drinking water for 600,000 people, enhanced biodiversity and provided local amenity land.

The Coal Authority seeks to let an Operational and Maintenance contract for the management of these sites, additional assets and over 700 data sampling points across England, Scotland and Wales. The existing contract ends on 31st December 2024 after a 10 year duration.

The Operational and Maintenance contract will be let under a NEC 4 Term Service Contract. The option choice is still to be determined and may involve more than one option from A, C and E. The duration of the contract is expected to be 10 years

Mine water treatment schemes vary in design depending on the composition of the mine water, the land available, planning constraints and latest technology.

The Coal Authority use standard designs where appropriate, however each site is individually customised to meet local requirements and constraints.

It is expected the contract will require the operation and maintenance of, including but not limited to:

24 passive schemes - typically mine water is brought to the top of a cascade structure. Water flows down these steps, which entrains oxygen. The oxygen encourages the dissolved iron in the water to become iron particles. The water then flows into lagoons where the iron has time to settle at the bottom for removal. The remaining finer iron particles are filtered out when the water passes through a series of reed beds.

34 pumped passive schemes - usually, mine water is pumped from below ground rather than gravity fed and then follows the passive process.

6 active schemes - this is a pumped or passive treatment scheme that requires chemicals to be added to the mine water in order to correct pH and/or facilitate the iron particles to drop out into the lagoon faster.

2 high density sludge active schemes - mine water is pumped from its source into a series of

mixing tanks, the first is where carbon dioxide is removed (de-gassing) it's then transferred to the next, where a small proportion of re-cycled sludge is added, it's then transferred to the final mixing tank where lime is added. From here the water is dosed with a flocculant before being treated in lamella clarifiers where the sludge is removed from the mine water. The sludge is then transferred to either a filter press or centrifuge for de-watering. Regular collections of the sludge are required which transports it to a waste management facility.

8 Pump stations / intervention schemes - mine water is transferred (pumped or gravity fed) from its source into a water course without any treatment. The diversion of the mine water is the intervention and the dilution and dispersion of the mine water to the water course is all that's required on these sites currently.

The Coal Authority manages 7 Subsidence Pumping stations directly and supports Internal Drainage Boards in managing a further 70+ sites.

The majority of schemes are subject to discharge consents and/or abstraction licences.

700+ monitoring points - The Coal Authority has hundreds of locations where data is gathered including mine water levels and chemistry analysis is required to provide data to make decisions on potential impacts of the mine water block in that area.

Assets including gas fan stations, flood defence reservoirs, tips and other equipment maintenance will also potentially be included in the contract.

In excess of 30 new schemes are expected to be designed and built by the Coal Authority over the contract period, the design and build is excluded from the contract but expertise from the contractor may be sought to support and review the design for suitability from an operational viewpoint.

In a typical year the facilities treat over 128 billion litres of mine water and to ensure water quality is compliant with consents they consume over 150t of hydrated lime and over 50t of Limesol liquid lime, 3t of polymer, over 1000t of Sodium Hydroxide (47% mainly with some 20% concentration) and over 250t of Hydrogen Peroxide.

In addition to the operational plant there is a mixture of buildings and infrastructure, storage facilities and satellite offices to be managed. The sites are operational 24hrs a day, there is the requirement for stand-by support over evenings and weekends, including response times.

There is a remote telemetry monitoring system on 49 sites.

The potential service required under this contract is the operational, planned and preventative maintenance to the mine water treatment schemes, including but not limited to:

- Ensuring compliance with regulatory consents, licenses, and permits to operate, as well as liaising with the appropriate regulatory bodies
- Adhering to health, safety and environmental standards
- Carrying out checks on the treatment schemes, adjusting water levels to ensure optimum performance
- 24hr reactive response to incidents involving site failures impacting people or the environment
- Performing maintenance activities including grounds maintenance, reed bed remediation (cutting reeds using a truxor) and sludge disposal which involves transferring sludge to a drying bay and/or to a waste disposal facility
- Pump lifts and ancillary equipment replacement
- Making educated adjustments to the treatment process to ensure efficient use of chemicals and power
- Procuring chemicals and supervising delivery and storage of chemicals.
- Water sampling and flow measuring data gathering/capture, submitting and reporting via the Coal Authority Data Management System
- Reporting on operational costs, safety statistics, risks and performance trends.

Additional services that could be instructed as required may include:

- Project management of capital projects including reed bed refurbishments, pump and pipe work repairs and replacement, equipment purchases, health and safety improvements on sites
- Managing, supervising and assisting in research and development projects
- Managing, supervising and operating pumping tests.

The Coal Authority are committed to becoming a more sustainable organisation (environmental and social) and want to use our work to help deliver positive change in the communities we support. We have an ambition to be a net zero organisation by 2030 and we will continue to decarbonise our activities. The delivery of the services will be a critical element to achieve these ambitions and our sustainable targets.

The Coal Authority also wish to explore the option of a design build and operate model. As

indicated above there is the potential for the construction of 30 new schemes over this period and the refurbishment of current schemes that require civil engineering activities.

The anticipated time line for the issue of tender documents is mid-June 2023.

This will allow for a period of site visits and early contractor involvement.

Tender submissions are expected to be returned within 3 months by mid-September 2023.

Following award in March 2024, a six month mobilisation period will commence in June 2024, allowing for a seamless handover and full operational control will start on 1st January 2025.

The funding for this contract is dependent on government spending review cycles and approval.

The operational and maintenance of the sites is the core of the contract and additional works will be instructed via task orders.

The contract value is dependent on funding and site requirements and is therefore variable year on year.

The Coal Authority's head office is located at 200 Lichfield Lane, Mansfield, Nottingham. The option for the contractor to co-locate at this office and work closely with the Service Managers and Environment Department at the Coal Authority who manage the contract is available, there are 12 desks available to enable a collaborative working approach.

Indicative Timeline

Task Name Commencement

PIN Publication July 2022

Early Market Engagement August 2022

Tender Publication June 2023

Contractor Site Visits June 2023

Tender Submission Deadline September 2023

evaluation of Bids September 2023

Notification of Award December 2023

Mobilisation June 2024

Contract start on site Jan 2024

Market Engagement

The Coal Authority would like to invite interested companies to discuss the proposal of the contract and understand better our requirements for this tender.

We would welcome you to join us from week commencing 29th August via video conference or at our offices in Mansfield to discuss our requirements and seek input and feedback, understand any concerns and learn from any other successful arrangements.

Please express your interest in attending by contacting Gareth Billings, Procurement Business Partner: garethbillings@coal.gov.uk

Any costs incurred by participating in this exercise will be borne by the participating organisations.

Please note that this is not a call for competition.

Any future procurement will be subject to a separate advertisement.

II.3) Estimated date of publication of contract notice

16 June 2023

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: No

Section VI. Complementary information

VI.3) Additional information

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