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Planning

Active Treatment Trials - innovative technology and approaches

The Coal Authority

F01: Prior information notice
Prior information only
Notice identifier: 2024/S 000-026365
Procurement identifier (OCID): ocds-h6vhtk-0491e1
Published 19 August 2024, 5:45pm

Section I: Contracting authority

I.1) Name and addresses

The Coal Authority

200 Lichfield Lane

MANSFIELD

NG184RG

Contact

Peter Kobryn

Email

peterkobryn@coal.gov.uk

Country

United Kingdom

Region code

UKF15 - North Nottinghamshire

Justification for not providing organisation identifier

Not on any register

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

Active Treatment Trials - innovative technology and approaches

Reference number

CA18/2/1/95

II.1.2) Main CPV code

- 45232430 - Water-treatment work

II.1.3) Type of contract

Works

II.1.4) Short description

In 2011, the Water and Abandoned Metal Mines (WAMM) Programme was set up between the Environment Agency, Defra and the Coal Authority to address pollution of rivers by abandoned metal mines.

Currently, the Coal Authority operates four WAMM mine water treatment schemes, each using a different treatment technology, which are improving water quality in about 20 km of rivers.

In January 2023, Parliament adopted a statutory metal mines target, under the Environment Act 2021, to halve the length of English rivers polluted by harmful metals from abandoned metal mines by 2038.

The Government's Environmental Improvement Plan (EIP), published in January 2023, estimated that to achieve this long-term target would likely require around 40 new mine water treatment schemes and a similar number of diffuse interventions.

The EIP set a non-statutory interim target to construct 8 mine water treatment schemes and 20 diffuse interventions by 31 January 2028.

To help deliver the interim and long-term targets, the WAMM Programme is currently investigating active treatment options for mine water discharging from abandoned metal

mines by undertaking active treatment trials on up to five sites

The purpose of this document is to alert interested parties to a forthcoming open tender exercise which will seek to appoint party/parties to undertake these investigations.

No action is required from interested parties at this stage however, if you have any queries about this opportunity please contact peterkobryn@coal.gov.uk no later than 23 September 2024.

The appointed party / parties will design and undertake pilot trials for the active treatment of mine water of up to 5 no. sites to obtain data for optimised treatment process and costs for treating the mine water at full-scale.

The Coal Authority is looking to award a number of packages of work through this tender ranging from 1 no. of the active trials up to 5 no. active trails. These may be at any of the 5 identified sites.

The Coal Authority reserves the right to award to multiple parties depending on the proposals provided during the tender period. Tenders shall be scored on the basis of most advantageous economic tender against criteria to be published in the tender documents.

The appointed party / parties shall design and supply a suitable pilot scale active treatment plant for each of the mine water sources to be treated.

The appointed party / parties shall provide an individual report at the end of each trial detailing the outcomes.

Accompanied visits to the five sites in question will be arranged during the tender period. Interested parties are strongly recommended to attend the site visits to support their submissions for this opportunity.

To enable resources to be planned for these visits please see below the dates and times that these visits will take place

If you require any further details with regard to these site visits for the purposes of planning, or wish to register your interest in attending please contact peterkobryn@coal.gov.uk

Date Site Location

08/10/2024 A Cornwall, South West of England

09/10/2024 B Devon, South West of England

30/09/2024 C County Durham, North Pennines

01/10/2024 D County Durham, North Pennines

02/10/2024 E Westmorland and Furness, North Pennines

Following the publication of this engagement notice we shall launch the open tender with a contract notice published on week commencing 23 September 2024

No action is required from interested parties at this stage however, if you have any queries about this opportunity please contact peterkobryn@coal.gov.uk no later than 23 September 2024.

II.1.6) Information about lots

This contract is divided into lots: No

II.2) Description

II.2.3) Place of performance

NUTS codes

- UKC - North East (England)
- UKD - North West (England)
- UKK - South West (England)

II.2.4) Description of the procurement

In 2011, the Water and Abandoned Metal Mines (WAMM) Programme was set up between the Environment Agency, Defra and the Coal Authority to address pollution of rivers by abandoned metal mines.

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To help deliver the interim and long-term targets, the WAMM Programme is currently investigating active treatment options for mine water discharging from abandoned metal mines by undertaking active treatment trials on up to five sites

The purpose of this document is to alert interested parties to a forthcoming open tender exercise which will seek to appoint party/parties to undertake these investigations.

No action is required from interested parties at this stage however, if you have any queries about this opportunity please contact peterkobryn@coal.gov.uk no later than 23 September 2024.

Scope of project

The appointed party / parties will design and undertake pilot trials for the active treatment of mine water of up to 5 no. sites to obtain data for optimised treatment process and costs for treating the mine water at full-scale.

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The appointed party / parties shall design and supply a suitable pilot scale active treatment plant for each of the mine water sources to be treated.

The appointed party / parties shall provide an individual report at the end of each trial detailing the outcomes.

Location of works

The five abandoned metal mine sites are located in Cornwall, Devon, County Durham and Westmorland and Furness.

Description of services

The core objective of this study is to obtain the data necessary to provide indicative costs for treating the mine water at the five sites using an appropriately sized active treatment scheme.

For the various options to be compared objectively, processes must be considered at optimised or near-optimised conditions.

"Optimal" can be a subjective measure, therefore for clarity, the Coal Authority considers "optimised" to mean that the sum of the following costs is minimised for a given set of feed conditions and process type:

• Power consumption variable costs

• Chemical reagent costs (incl. transport and delivery, etc.)

• Consumable costs (i.e. replacement electrodes, wear parts, etc.)

• Labour costs

• Waste disposal costs (incl. transport)

Study deliverables

The output of these studies shall be a report that describes the process to treat each mine water. The process concept should include, as a minimum, the following technical deliverables:

• Plant diagram to indicate the plant layout and the area the plant could occupy

• Process Flow Diagram

• Process description that will summarise how the plant will work

• Major equipment list, including "size" (i.e. capacity) of equipment

• Specifications / recommendations of process dependent chemicals required

• Chemical delivery and storage requirements and options. Some of the treatment sites may be in a rural setting and access during the winter could be restricted. So, there is a requirement to have at least 6 weeks storage of consumable chemicals on these sites during the winter period

• Study level appropriate capital cost estimate, using 2024 prices (+/- 40% Capital Expenditure), with breakdown by equipment list item and to, also, include civils and construction costs for the process building

• Annual requirement for contractually dependent consumables - e.g. total lime (tonnes) or total sodium hydroxide (tonnes), total hydrogen peroxide (cubic metres), total flocculant

(kilograms), total power (kilowatt hours) and total operator / maintainer requirement (man-hours)

• Study level appropriate estimates to be given for all operational consumables (+/- 40% Operating Expenditure on an annual basis)

• Mass and Energy Balance

• Annual mass and projected assays of the solid product streams

• Predicted Process Water quality in between precipitation stages (where applicable)

• Cost optimisation summary that demonstrates how the process concept provided minimises overall costs within the constraints provided. Other cost optimisation/comparisons for other reagents maybe identified and required as the study takes place

• Local waste recycling or disposal options of solids product stream (at high level)

It should be noted that the above list of technical deliverables is not exhaustive and other technical deliverables maybe identified and required as the study takes place.

Tender site visits

Accompanied visits to the five sites in question will be arranged during the tender period. Interested parties are strongly recommended to attend the site visits to support their submissions for this opportunity.

To enable resources to be planned for these visits please see below the dates and times that these visits will take place

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II.3) Estimated date of publication of contract notice

23 September 2024

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