Tender

753 - Pilot Scale Fluidised Bed Pressurised Gasifier

Aston University

F02: Contract notice
Notice identifier: 2023/S 000-011503
Procurement identifier (OCID): ocds-h6vhtk-03c32d
Published 21 April 2023, 1:03pm

Section I: Contracting authority

I.1) Name and addresses

Aston University

Aston Triangle

Birmingham

B4 7ET

Contact

Mr Jacob Rankine

Email

j.rankine@aston.ac.uk

Country

United Kingdom

Region code

UKG31 - Birmingham

Internet address(es)

Main address

http://www.aston.ac.uk

Buyer's address

http://www.aston.ac.uk

I.3) Communication

The procurement documents are available for unrestricted and full direct access, free of charge, at

https://procontract.due-north.com/Advert/Index?advertId=ac894571-37e0-ed11-8121-005056b64545

Additional information can be obtained from the above-mentioned address

Tenders or requests to participate must be submitted electronically via

https://procontract.due-north.com/Advert/Index?advertId=ac894571-37e0-ed11-8121-005056b64545

I.4) Type of the contracting authority

Body governed by public law

I.5) Main activity

Education

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

753 - Pilot Scale Fluidised Bed Pressurised Gasifier

Reference number

DN666510

II.1.2) Main CPV code

- 38000000 - Laboratory, optical and precision equipments (excl. glasses)

II.1.3) Type of contract

Supplies

II.1.4) Short description

The Energy & Bioproducts Research Institute (EBRI) at Aston University is seeking to acquire a small-scale fluidised bed pressurised gasifier for the conversion of solid biomass feedstocks into syngas and solids (ash and char).

This system will form part of their integral research programme looking at low carbon hydrogen production. To meet the institute requirements, the gasifier must meet the following criteria:

• This unit is to work independently and with some flexibility in terms of processing capacity and other operational parameters (pressure, feedrate, and temperature).

• Processing capacity between 20-200 g/h and capable of operating at pressures between atmospheric and up to 10 bars. The reactor should be able to process different feedstocks (coal, petcoke, biomass, etc), therefore a suitable and flexible feeding system should be in place.

• The system should be able to switch between pyrolysis and gasification modes (i.e. work at different temperatures and fluidising agents).

• The operating temperatures should be minimum 850 °C, with flexible heating rate and temperature accuracy of ±1 °C.

• The system should have all the suitable control systems in place to monitor the hydrodynamics of the reactor during operation.

• The unit should have in place a cyclone for separation of gas and solids, a heat exchanger for gas cooling and high temperature filters suitable to work in the pressure range for removal of finer particles. Suitable relief valves, pressure control valve, gas detection and automatic shutdown valves should be in place and described.

The full project specific requirements and equipment specification can be found within the project question set on Aston University's e-tendering portal ProContract under Section 11 – Project Specific Requirements.

II.1.5) Estimated total value

Value excluding VAT: £400,000

II.1.6) Information about lots

This contract is divided into lots: No

II.2) Description

II.2.3) Place of performance

NUTS codes

- UKG31 - Birmingham

II.2.4) Description of the procurement

The Energy & Bioproducts Research Institute (EBRI) at Aston University is seeking to acquire a small-scale fluidised bed pressurised gasifier for the conversion of solid biomass feedstocks into syngas and solids (ash and char).

This system will form part of their integral research programme looking at low carbon hydrogen production. To meet the institute requirements, the gasifier must meet the following criteria:

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II.2.5) Award criteria

Price is not the only award criterion and all criteria are stated only in the procurement documents

II.2.7) Duration of the contract, framework agreement or dynamic purchasing system

Duration in months

12

This contract is subject to renewal

No

II.2.10) Information about variants

Variants will be accepted: No

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: No

IV.2) Administrative information

IV.2.2) Time limit for receipt of tenders or requests to participate

Date

24 May 2023

Local time

12:00pm

IV.2.4) Languages in which tenders or requests to participate may be submitted

English

IV.2.7) Conditions for opening of tenders

Date

24 May 2023

Local time

12:05pm

Section VI. Complementary information

VI.1) Information about recurrence

This is a recurrent procurement: No

VI.4) Procedures for review

VI.4.1) Review body

Aston University

Birmingham

Country

United Kingdom