This is a published notice on the Find a Tender service: https://www.find-tender.service.gov.uk/Notice/010243-2022

Tender

Sustainable Aviation Fuel Plant (Fischer-Tropsch)

UNIVERSITY OF SHEFFIELD

F02: Contract notice
Notice identifier: 2022/S 000-010243
Procurement identifier (OCID): ocds-h6vhtk-032e9f
Published 19 April 2022, 6:20pm

The closing date and time has been changed to:

10 June 2022, 12:00pm

See the change notice.

Section I: Contracting authority

I.1) Name and addresses

UNIVERSITY OF SHEFFIELD

Western Bank

SHEFFIELD

S102TN

Contact

David Middle

Email

dave.middle@sheffield.ac.uk

Telephone

+44 1142221560

Country

United Kingdom

Region code

UKE32 - Sheffield

Internet address(es)

Main address

https://www.sheffield.ac.uk/

I.3) Communication

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

https://in-tendhost.co.uk/sheffield/aspx/Home

Additional information can be obtained from the above-mentioned address

Tenders or requests to participate must be submitted electronically via

https://in-tendhost.co.uk/sheffield/aspx/Home

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

Sustainable Aviation Fuel Plant (Fischer-Tropsch)

Reference number

3321/DM

II.1.2) Main CPV code

- 09000000 - Petroleum products, fuel, electricity and other sources of energy

II.1.3) Type of contract

Supplies

II.1.4) Short description

The University of Sheffield's Translational Energy Research Centre (TERC) is one of the largest and best-equipped national R&D centres in Europe for zero-carbon energy, hydrogen, bioenergy, and Carbon Capture, Utilisation and Storage (CCUS). We are looking to procure a sustainable aviation fuel (SAF) pilot plant based on Fischer-Tropsch technology. The plant will be required to produce at least 1.5 litres/h of sustainable aviation fuel to Jet A-1 ASTM specification D1655 (with flash point minimum of 38°C and a freeze point maximum of -47°C). The SAF plant will utilise CO2 extracted from bioenergy exhaust gases and on-site generated green H2 as feedstocks. It will also have the option to use biomass syngas from an onsite gasifier.

II.1.5) Estimated total value

Value excluding VAT: £3,455,000

II.1.6) Information about lots

This contract is divided into lots: Yes

Tenders may be submitted for all lots

Maximum number of lots that may be awarded to one tenderer: 8

II.2) Description

II.2.1) Title

Feed gas clean up and conditioning module

Lot No

1A

II.2.2) Additional CPV code(s)

- 38970000 - Research, testing and scientific technical simulator
- 73000000 - Research and development services and related consultancy services

II.2.3) Place of performance

NUTS codes

- UKE32 - Sheffield

Main site or place of performance

Translational Energy Research Centre at The University of Sheffield

II.2.4) Description of the procurement

The University of Sheffield's Translational Energy Research Centre (TERC) is one of the largest and best-equipped national R&D centres in Europe for zero-carbon energy, hydrogen, bioenergy, and Carbon Capture, Utilisation and Storage (CCUS). We are looking to procure a sustainable aviation fuel (SAF) pilot plant based on Fischer-Tropsch technology. The plant will be required to produce at least 1.5 litres/h of sustainable aviation fuel to Jet A-1 ASTM specification D1655 (with flash point minimum of 38°C and a freeze point maximum of -47°C). The SAF plant will utilise CO2 extracted from bioenergy exhaust gases and on-site generated green H2 as feedstocks. It will also have the option to use biomass syngas from an onsite gasifier.

The tender is for a full turn-key solution including: design, build, installation and commissioning of all elements of the plant from cleaning and preparation of the feed gases, through to conversion of CO2 and H2 to syngas; reaction of the syngas in an FT reactor; and product upgrading steps to achieve the desired product. The selected tenderer will be the Principal Designer and the Principal Contractor for the project with respect to CDM regulations.

II.2.5) Award criteria

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

documents

II.2.6) Estimated value

Value excluding VAT: £250,000

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

Start date

1 July 2022

End date

28 February 2023

This contract is subject to renewal

No

II.2.10) Information about variants

Variants will be accepted: Yes

II.2.11) Information about options

Options: Yes

Description of options

As described within the tender documents

II.2) Description

II.2.1) Title

Biomass syngas clean upand conditioning module (as add-on to Lot 1A)

Lot No

1B

II.2.2) Additional CPV code(s)

- 38970000 - Research, testing and scientific technical simulator

- 73000000 - Research and development services and related consultancy services

II.2.3) Place of performance

NUTS codes

- UKE32 - Sheffield

Main site or place of performance

Translational Energy Research Centre at The University of Sheffield

II.2.4) Description of the procurement

The University of Sheffield's Translational Energy Research Centre (TERC) is one of the largest and best-equipped national R&D centres in Europe for zero-carbon energy, hydrogen, bioenergy, and Carbon Capture, Utilisation and Storage (CCUS). We are looking to procure a sustainable aviation fuel (SAF) pilot plant based on Fischer-Tropsch technology. The plant will be required to produce at least 1.5 litres/h of sustainable aviation fuel to Jet A-1 ASTM specification D1655 (with flash point minimum of 38°C and a freeze point maximum of -47°C). The SAF plant will utilise CO2 extracted from bioenergy exhaust gases and on-site generated green H2 as feedstocks. It will also have the option to use biomass syngas from an onsite gasifier.

The tender is for a full turn-key solution including: design, build, installation and commissioning of all elements of the plant from cleaning and preparation of the feed gases, through to conversion of CO2 and H2 to syngas; reaction of the syngas in an FT reactor; and product upgrading steps to achieve the desired product. The selected tenderer will be the Principal Designer and the Principal Contractor for the project with respect to CDM regulations.

II.2.5) Award criteria

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

II.2.6) Estimated value

Value excluding VAT: £125,000

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

Start date

1 July 2022

End date

28 February 2023

This contract is subject to renewal

No

II.2.10) Information about variants

Variants will be accepted: Yes

II.2.11) Information about options

Options: Yes

Description of options

As described within the tender documents

II.2) Description

II.2.1) Title

Reverse Water Gas Shift (RWGS) module

Lot No

2

II.2.2) Additional CPV code(s)

- 38970000 - Research, testing and scientific technical simulator
- 73000000 - Research and development services and related consultancy services

II.2.3) Place of performance

NUTS codes

- UKE32 - Sheffield

Main site or place of performance

Translational Energy Research centre at The University of Sheffield

II.2.4) Description of the procurement

The University of Sheffield's Translational Energy Research Centre (TERC) is one of the largest and best-equipped national R&D centres in Europe for zero-carbon energy, hydrogen, bioenergy, and Carbon Capture, Utilisation and Storage (CCUS). We are looking to procure a sustainable aviation fuel (SAF) pilot plant based on Fischer-Tropsch technology. The plant will be required to produce at least 1.5 litres/h of sustainable aviation fuel to Jet A-1 ASTM specification D1655 (with flash point minimum of 38°C and a freeze point maximum of -47°C). The SAF plant will utilise CO2 extracted from bioenergy exhaust gases and on-site generated green H2 as feedstocks. It will also have the option to use biomass syngas from an onsite gasifier.

The tender is for a full turn-key solution including: design, build, installation and commissioning of all elements of the plant from cleaning and preparation of the feed gases, through to conversion of CO2 and H2 to syngas; reaction of the syngas in an FT reactor; and product upgrading steps to achieve the desired product. The selected tenderer will be the Principal Designer and the Principal Contractor for the project with respect to CDM regulations.

II.2.5) Award criteria

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

II.2.6) Estimated value

Value excluding VAT: £800,000

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

Start date

1 July 2022

End date

28 February 2023

This contract is subject to renewal

No

II.2.10) Information about variants

Variants will be accepted: Yes

II.2.11) Information about options

Options: Yes

Description of options

As described within the tender documents

II.2) Description

II.2.1) Title

Blending Skid

Lot No

3

II.2.2) Additional CPV code(s)

- 38970000 - Research, testing and scientific technical simulator
- 73000000 - Research and development services and related consultancy services

II.2.3) Place of performance

NUTS codes

- UKE32 - Sheffield

Main site or place of performance

Translational Energy Research Centre at The University of Sheffield

II.2.4) Description of the procurement

The University of Sheffield's Translational Energy Research Centre (TERC) is one of the largest and best-equipped national R&D centres in Europe for zero-carbon energy, hydrogen, bioenergy, and Carbon Capture, Utilisation and Storage (CCUS). We are looking to procure a sustainable aviation fuel (SAF) pilot plant based on Fischer-Tropsch technology. The plant will be required to produce at least 1.5 litres/h of sustainable aviation fuel to Jet A-1 ASTM specification D1655 (with flash point minimum of 38°C and a freeze point maximum of -47°C). The SAF plant will utilise CO2 extracted from bioenergy exhaust gases and on-site generated green H2 as feedstocks. It will also have the option to use biomass syngas from an onsite gasifier.

The tender is for a full turn-key solution including: design, build, installation and commissioning of all elements of the plant from cleaning and preparation of the feed gases, through to conversion of CO2 and H2 to syngas; reaction of the syngas in an FT reactor; and product upgrading steps to achieve the desired product. The selected tenderer will be the Principal Designer and the Principal Contractor for the project with respect to CDM regulations.

II.2.5) Award criteria

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

II.2.6) Estimated value

Value excluding VAT: £100,000

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

Start date

1 July 2022

End date

28 February 2023

This contract is subject to renewal

No

II.2.10) Information about variants

Variants will be accepted: Yes

II.2.11) Information about options

Options: Yes

Description of options

As described within the tender documents

II.2) Description

II.2.1) Title

Fischer Tropsch reactor

Lot No

4

II.2.2) Additional CPV code(s)

- 38970000 - Research, testing and scientific technical simulator
- 73000000 - Research and development services and related consultancy services

II.2.3) Place of performance

NUTS codes

- UKE32 - Sheffield

Main site or place of performance

Translational Energy Research Centre at The University of Sheffield

II.2.4) Description of the procurement

The University of Sheffield's Translational Energy Research Centre (TERC) is one of the largest and best-equipped national R&D centres in Europe for zero-carbon energy, hydrogen, bioenergy, and Carbon Capture, Utilisation and Storage (CCUS). We are looking to procure a sustainable aviation fuel (SAF) pilot plant based on Fischer-Tropsch technology. The plant will be required to produce at least 1.5 litres/h of sustainable aviation fuel to Jet A-1 ASTM specification D1655 (with flash point minimum of 38°C and a freeze point maximum of -47°C). The SAF plant will utilise CO2 extracted from bioenergy exhaust gases and on-site generated green H2 as feedstocks. It will also have the option to use biomass syngas from an onsite gasifier.

The tender is for a full turn-key solution including: design, build, installation and commissioning of all elements of the plant from cleaning and preparation of the feed gases, through to conversion of CO2 and H2 to syngas; reaction of the syngas in an FT reactor; and product upgrading steps to achieve the desired product. The selected tenderer will be the Principal Designer and the Principal Contractor for the project with respect to CDM regulations.

II.2.5) Award criteria

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

II.2.6) Estimated value

Value excluding VAT: £1,000,000

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

Start date

1 July 2022

End date

28 February 2023

This contract is subject to renewal

No

II.2.10) Information about variants

Variants will be accepted: Yes

II.2.11) Information about options

Options: Yes

Description of options

As described within the tender documents

II.2) Description

II.2.1) Title

Hydrocracking and hydrogeneration reactor

Lot No

5

II.2.2) Additional CPV code(s)

- 38970000 - Research, testing and scientific technical simulator
- 73000000 - Research and development services and related consultancy services

II.2.3) Place of performance

NUTS codes

- UKE32 - Sheffield

Main site or place of performance

Translational Energy Research Centre at The University of Sheffield

II.2.4) Description of the procurement

As described within the tender documents

II.2.5) Award criteria

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

II.2.6) Estimated value

Value excluding VAT: £900,000

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

Start date

1 July 2022

End date

28 February 2023

This contract is subject to renewal

No

II.2.10) Information about variants

Variants will be accepted: Yes

II.2.11) Information about options

Options: Yes

Description of options

As described within the tender documents

II.2) Description

II.2.1) Title

Distillation module

Lot No

6

II.2.2) Additional CPV code(s)

- 38970000 - Research, testing and scientific technical simulator
- 73000000 - Research and development services and related consultancy services

II.2.3) Place of performance

NUTS codes

- UKE32 - Sheffield

Main site or place of performance

Translational Energy Research Centre at The University of Sheffield

II.2.4) Description of the procurement

As described within the tender documents

II.2.5) Award criteria

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

II.2.6) Estimated value

Value excluding VAT: £180,000

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

Start date

1 July 2022

End date

28 February 2023

This contract is subject to renewal

No

II.2.10) Information about variants

Variants will be accepted: Yes

II.2.11) Information about options

Options: Yes

Description of options

As described within the tender documents

II.2) Description

II.2.1) Title

Online process analyser

Lot No

7

II.2.2) Additional CPV code(s)

- 38970000 - Research, testing and scientific technical simulator
- 73000000 - Research and development services and related consultancy services

II.2.3) Place of performance

NUTS codes

- UKE32 - Sheffield

Main site or place of performance

Translational Energy Research Centre at The University of Sheffield

II.2.4) Description of the procurement

As described within the tender documents

II.2.5) Award criteria

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

II.2.6) Estimated value

Value excluding VAT: £100,000

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

Start date

1 July 2022

End date

28 February 2023

This contract is subject to renewal

No

II.2.10) Information about variants

Variants will be accepted: Yes

II.2.11) Information about options

Options: Yes

Description of options

As described within the tender documents

Section III. Legal, economic, financial and technical information

III.1) Conditions for participation

III.1.1) Suitability to pursue the professional activity, including requirements relating to enrolment on professional or trade registers

List and brief description of conditions

As per the tender documents

III.1.2) Economic and financial standing

Selection criteria as stated in the procurement documents

III.1.3) Technical and professional ability

Selection criteria as stated in the procurement documents

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

Originally published as:

Date

3 June 2022

Local time

12:00pm

Changed to:

Date

10 June 2022

Local time

12:00pm

See the change notice.

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

English

IV.2.7) Conditions for opening of tenders

Date

3 June 2022

Local time

12:10pm

Place

The University of Sheffield, Finance Department

Section VI. Complementary information

VI.1) Information about recurrence

This is a recurrent procurement: No

VI.2) Information about electronic workflows

Electronic ordering will be used

Electronic invoicing will be accepted

Electronic payment will be used

VI.4) Procedures for review

VI.4.1) Review body

University of Sheffield

Sheffield

S10 2TN

Country

United Kingdom