



Invitation to Quote

**Invitation to Quote (ITQ) on behalf of the Science and Technology
Facilities Council**

Subject UK SBS: ESS Liquid Nitrogen Distribution

Sourcing reference number: PR16256

UK Shared Business Services Ltd (UK SBS)
www.uksbs.co.uk

Registered in England and Wales as a limited company. Company Number 6330639.
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UKSBS

Shared Business Services

Table of Contents

Section	Content
1	<u>About UK Shared Business Services Ltd.</u>
2	<u>About our Customer</u>
3	<u>Working with UK Shared Business Services Ltd.</u>
4	<u>Specification</u>
5	<u>Evaluation model</u>
6	<u>Evaluation questionnaire</u>
7	<u>General Information</u>

Section 1 – About UK Shared Business Services

Putting the business into shared services

UK Shared Business Services Ltd (UK SBS) brings a commercial attitude to the public sector; helping our customers improve efficiency, generate savings and modernise.

It is our vision to become the leading provider for our customers of shared business services in the UK public sector, continuously reducing cost and improving quality of business services for Government and the public sector.

Our broad range of expert services is shared by our customers. This allows our customers the freedom to focus resources on core activities; innovating and transforming their own organisations.

Core services include Procurement, Finance, Grants Admissions, Human Resources, Payroll, ISS, and Property Asset Management all underpinned by our Service Delivery and Contact Centre teams.

UK SBS is a people rather than task focused business. It's what makes us different to the traditional transactional shared services centre. What is more, being a not-for-profit organisation owned by its customers, UK SBS' goals are aligned with the public sector and delivering best value for the UK taxpayer.

UK Shared Business Services Ltd changed its name from RCUK Shared Services Centre Ltd in March 2013.

Our Customers

Growing from a foundation of supporting the Research Councils, 2012/13 saw Business Innovation and Skills (BIS) transition their procurement to UK SBS and Crown Commercial Services (CCS – previously Government Procurement Service) agree a Memorandum of Understanding with UK SBS to deliver two major procurement categories (construction and research) across Government.

UK SBS currently manages £700m expenditure for its Customers.

Our Customers who have access to our services and Contracts are detailed [here](#).

Section 2 – About Our Customer

Science and Technology Facilities Council (STFC)

STFC is a world-leading multi-disciplinary science organisation, whose goal is to deliver economic, societal, scientific and international benefits to the UK and its people – and more broadly to the world.

STFC support an academic community of around 1,700 in particle physics, nuclear physics, and astronomy including space science, who work at more than 50 universities and research institutes in the UK, Europe, Japan and the United States, including a rolling cohort of more than 900 PhD students.

The organisation's large-scale scientific facilities in the UK and Europe are used by more than 3,500 users each year, carrying out more than 2,000 experiments and generating around 900 publications.

The combination of access to world-class research facilities and scientists, office and laboratory space, business support, and an environment which encourages innovation has proven a compelling combination, attracting start-ups, SMEs and large blue chips such as IBM and Unilever.

Examples of funded research

- STFC is providing the design infrastructure for the £23bn UK microelectronics sector that underpins strategically important industries worth £78bn to the UK economy
- STFC's ISIS facility and its users, working in partnership with the NHS, developed a novel material to improve the treatment of cleft lip and palate, speeding up healing times and reducing operating costs
- STFC's Synchrotron Radiation Source was used to understand how conventional anti-malarial drugs work, allowing the development of more effective treatment to reduce the devastating global impact of malaria
- STFC's ISIS facility is identifying new materials that can safely and conveniently store hydrogen, enabling the development of hydrogen-fuelled cars reducing reliance on fossil fuels and cutting carbon emissions

www.stfc.ac.uk

Section 3 - Working with UK Shared Business Services Ltd.

In this section you will find details of your Procurement contact point and the timescales relating to this opportunity.

Section 3 – Contact details		
3.1	Customer Name and address	Science and Technology Facilities Council
3.2	Buyer name	Elizabeth Gage
3.3	Buyer contact details	Majorprojects@uksbs.co.uk
3.4	Estimated value of the Opportunity	£25K-£35K
3.5	Process for the submission of clarifications and Bids	<p>All correspondence shall be submitted within the Emptoris e-sourcing tool. Guidance Notes to support the use of Emptoris is available here.</p> <p>Please note submission of a Bid to any email address including the Buyer <u>will</u> result in the Bid <u>not</u> being considered.</p>

Section 3 - Timescales		
3.6	Date of Issue of Contract Advert and location of original Advert	05/01/2017 Contract Finder
3.7	Latest date/time ITQ clarification questions should be received through Emptoris messaging system	13/01/2017 14:00
3.8	Latest date/time ITQ clarification answers should be sent to all potential Bidders by the Buyer through Emptoris	17/01/2017 17:00
3.9	Latest date/time ITQ Bid shall be submitted through Emptoris	19/01/2017 14:00
3.12	Anticipated Award date	26/01/2017
3.13	Anticipated Contract Start date	31/03/2017
3.15	Bid Validity Period	60 Days

Section 4 – Specification

1 Project Overview.

As part of an In-Kind Contribution to the European Spallation Source, STFC-Daresbury Laboratory has agreed to procure, fabricate, test and deliver 84 + 4 (5-cell) High-Beta superconducting 704.41 MHz cavities for the ESS High Beta Project.

This specification is concerned with the installation of a main liquid nitrogen feed up to the central Helium Liquefier. All flow rates and pressures stated at 3.2 of this document must be achievable during normal operations.

This document is intended to provide the specialist cryogenics piping contractor with sufficient information to enable them to prepare a compliant tender submission for the engineering manufacture, delivery, installation and commissioning of the nitrogen supply system. Prospective vendors are strongly advised to visit the site in order to familiarise themselves with installation areas, prior to any submission.

The equipment specification and the following requirements should be considered to be the minimum acceptable standards. Should a particular installation require a variance from this documentation then written acceptance must be obtained from the client, prior to commencing any works on site.

2 Scope of Supply.

2.1: Supplied Items:

- Main LIN supply line including a normally closed 24v solenoid valve situated adjacent to the existing external storage tank approximately 50m from applications.
- LIN supply line (ridged or flexible) to 4K Refrigerator interface.

2.2: Feed Interfaces:

- The outlet valve of the external bulk storage liquid Nitrogen tank situated approximately 50m from the phase separator/distribution vessel position.
- The inlet valve of the Helium liquefier
- See 3.2 of this document for interface connections of applications.

2.3: Services interfaces:

- Daresbury laboratory will supply electrical power, site compressed air and water services.

3 Equipment Specification

3.1: LIN supply lines:

- All liquid nitrogen supply lines should have a heat in leak of not more than 1W/m. (when at LN2 temperatures / ambient 20°C,)
- All liquid nitrogen supply lines must not exceed 5bar g as a maximum pressure during normal operation.
- All liquid nitrogen supply lines must be adequately protected from over pressurisation.
- Lines supplying LIN to applications may be manufactured from rigid or flexible (or combination of both) pipes. All lines must be adequately supported.
- Non welded joints should be of the Johnston coupling variety. Alternate jointing must be agreed with Daresbury Laboratory.
- All LIN supply lines should be supplied with adequate wall fixings.

3.2: Application LIN Requirements.

4K Refrigerator/Cold Box	
Normal Flow Rate	90 l/h
Minimum Operating Pressure	2 bara
Maximum Operating Pressure	4 bara
Quality	Saturated with a maximum of 10% gaseous fraction
Feed Connection	1/4" butt Weld insulation jacket size TBC.
Control Valve	Supplied by Daresbury Laboratory

4 Tender Documents.

The following details are required to be returned with your tender together with any additional information that you would consider to be useful in evaluating your proposals

4.1 General Description:

A general description of the Liquid Nitrogen Supply & Distribution system required. This will include:

- An explanation of the design.
- Confirmation of the system reliability to maintain the net cooling requirements.
- A description of the main components.
- A guaranteed maximum system average heat in leak expressed as W/m

4.2 General Arrangement Drawings:

A full set of general arrangement drawings are required for the main components. These drawings are to include plant dimensions and operating weights. A site plan indicating pipe work routes is also required

4.3 Health and Safety Policy

A copy of the company's current Health and Safety policy and examples of Method Statements and Risk Assessments are to be submitted

4.4 Environmental Policy

A copy of the company's current Environmental policy is to be submitted

4.5 Build Standards:

You are to confirm in your submission the build standards to be used.

4.6 Subcomponents and suppliers:

We require a list of major subcomponents, stating the manufacturer and country of origin. We also require a list of proposed subcontractors to be used on the installations.

5 Build Requirements.

The following build standards and procedures will be observed for the design, construction, testing and commissioning of the Liquid Nitrogen Supply & Distribution system

5.1 Build Standards/ CE Marking:

Compliance with Pressure Equipment Directive (PED) 97/23/EC and shall be CE Marked where appropriate.

5.2 Electrical Testing:

You are required to conduct electrical safety tests on any supplied equipment after installation and provide appropriate certification, before final acceptance.

5.3 Operating and Maintenance Manuals:

All documentation is to be in English, copies to be electronic where possible.

5.4 As fixed drawings:

A complete set of updated as fixed drawings will be supplied by you within 14 days of hand over if the installation differs from the original design. The drawings are to be provided in Autocad format, plus two additional hard copies.

5.5 Method Statement:

A method statement is required for approval 28 days before commencement of on site working.

5.6 Site Requirements:

a) All works would be usually undertaken within normal working hours.
Normal working hours at Daresbury Laboratory are:

Monday to Thursday	08:30 - 17:00
Friday	08:30 - 16:00
(Excluding bank holidays)	

b) All access requirements, including the use of fixed scaffold and mobile platforms should be included in the contract price and will require production of relevant test and or inspection certification, before use is permitted.

c) The contractor must ensure that their representatives are equipped with all necessary tooling / equipment and appropriate PPE. This equipment must be tested and certified as required by relevant legislation.

d) All contract staff will be required to complete the site induction process, and may be required to provide evidence of relevant qualifications / experience before commencing work at the Laboratory. (The induction process takes approx. 2 hours)

e) All builders work in excess of the standard requirements for general installation of supports and drilled holes of 55mm or less etc. would be undertaken by others.

f) The contractor must comply with STFC Safety Codes, these are available on request.

6 Supplied Documents

6.1 Schematic layout Arrangement.

The schematic layout arrangement drawing shows the location of the LIN tank situated outside of the main building and the location of the appliances requiring LIN. This drawing is for tender evaluation purposes only and is subject to minor changes.

Section 5 – Evaluation model

The evaluation model below shall be used for this ITQ, which will be determined to two decimal places.

Where a question is 'for information only' it will not be scored.

The evaluation team may comprise staff from UK SBS, the Customer and any specific external stakeholders UK SBS deem required. After evaluation the scores will be finalised by performing a calculation to identify (at question level) the mean average of all evaluators (Example – a question is scored by three evaluators and judged as scoring 5, 5 and 6. These scores will be added together and divided by the number of evaluators to produce the final score of 5.33 ($5+5+6=16\div3=5.33$))

Pass / fail criteria		
Questionnaire	Q No.	Question subject
Commercial	SEL1.2	Employment breaches/ Equality
Commercial	FOI1.1	Freedom of Information Exemptions
Commercial	AW1.1	Form of Bid
Commercial	AW1.3	Certificate of Bona Fide Bid
Commercial	AW3.1	Validation check
Commercial	AW4.1	Contract Terms
Price	AW5.5	E Invoicing
Price	AW5.6	Implementation of E-Invoicing
Quality	AW6.1	Compliance to the Specification
Quality	PROJ1.1	Health and Safety Policy
Quality	PROJ1.2	Environmental Policy
Quality	PROJ1.3	Previous Experience
Quality	PROJ1.4	Qualified Welders – EN287 or ASME9
-	-	Invitation to Quote – received on time within e-sourcing tool

Scoring criteria

Evaluation Justification Statement

In consideration of this particular requirement UK SBS has decided to evaluate Potential Providers by adopting the weightings/scoring mechanism detailed within this ITQ. UK SBS considers these weightings to be in line with existing best practice for a requirement of this type.

Questionnaire	Q No.	Question subject	Maximum Marks
Price	AW5.2	Price	75.00%
Quality	PROJ1.5	Project Management	15.00%
Delivery	PROJ1.6	Delivery and Installation	10.00%

Evaluation of criteria

Non-Price elements

Each question will be judged on a score from 0 to 100, which shall be subjected to a multiplier to reflect the percentage of the evaluation criteria allocated to that question.

Where an evaluation criterion is worth 20% then the 0-100 score achieved will be multiplied by 20.

Example if a Bidder scores 60 from the available 100 points this will equate to 12% by using the following calculation: Score/Total Points available multiplied by 20 ($60/100 \times 20 = 12$)

Where an evaluation criterion is worth 10% then the 0-100 score achieved will be multiplied by 10.

Example if a Bidder scores 60 from the available 100 points this will equate to 6% by using the following calculation: Score/Total Points available multiplied by 10 ($60/100 \times 10 = 6$)

The same logic will be applied to groups of questions which equate to a single evaluation criterion.

The 0-100 score shall be based on (unless otherwise stated within the question):

0	The Question is not answered or the response is completely unacceptable.
10	Extremely poor response – they have completely missed the point of the question.
20	Very poor response and not wholly acceptable. Requires major revision to the response to make it acceptable. Only partially answers the requirement, with major deficiencies and little relevant detail proposed.

40	Poor response only partially satisfying the selection question requirements with deficiencies apparent. Some useful evidence provided but response falls well short of expectations. Low probability of being a capable supplier.
60	Response is acceptable but remains basic and could have been expanded upon. Response is sufficient but does not inspire.
80	Good response which describes their capabilities in detail which provides high levels of assurance consistent with a quality provider. The response includes a full description of techniques and measurements currently employed.
100	Response is exceptional and clearly demonstrates they are capable of meeting the requirement. No significant weaknesses noted. The response is compelling in its description of techniques and measurements currently employed, providing full assurance consistent with a quality provider.

All questions will be scored based on the above mechanism. Please be aware that the final score returned may be different as there may be multiple evaluators and their individual scores will be averaged (mean) to determine your final score.

Example

Evaluator 1 scored your bid as 60

Evaluator 2 scored your bid as 60

Evaluator 3 scored your bid as 40

Evaluator 4 scored your bid as 40

Your final score will $(60+60+40+40) \div 4 = 50$

Price elements will be judged on the following criteria.

The lowest price for a response which meets the pass criteria shall score 100. All other bids shall be scored on a pro rata basis in relation to the lowest price. The score is then subject to a multiplier to reflect the percentage value of the price criterion.

For example - Bid 1 £100,000 scores 100.

Bid 2 £120,000 differential of £20,000 or 20% remove 20% from price scores 80

Bid 3 £150,000 differential £50,000 remove 50% from price scores 50.

Bid 4 £175,000 differential £75,000 remove 75% from price scores 25.

Bid 5 £200,000 differential £100,000 remove 100% from price scores 0.

Bid 6 £300,000 differential £200,000 remove 100% from price scores 0.

Where the scoring criterion is worth 50% then the 0-100 score achieved will be multiplied by 50.

In the example if a supplier scores 80 from the available 100 points this will equate to 40% by using the following calculation: $\text{Score}/\text{Total Points} \times 50$ ($80/100 \times 50 = 40$)

The lowest score possible is 0 even if the price submitted is more than 100% greater than the lowest price.

Tied outcome process for this tender

Once the evaluation process and due diligence is complete, should the result of the process result in a tied place(s) then the supplier(s) who scored the highest total in the total Quality Questionnaire criteria shall be considered the successful supplier and shall be awarded the

opportunity.

Quality question PROJ1.5 - Maximum marks 15.00%
Delivery question PROJ1.6 - Maximum marks 10.00%
Total maximum marks – 25.00%

Section 6 – Evaluation questionnaire

Bidders should note that the evaluation questionnaire is located within the **e-sourcing questionnaire**.

Guidance on completion of the questionnaire is available at
<http://www.ukpbs.co.uk/services/procure/Pages/supplier.aspx>

PLEASE NOTE THE QUESTIONS ARE NOT NUMBERED SEQUENTIALLY

Section 7 – General Information

What makes a good bid – some simple do's 😊

DO:

- 7.1 Do comply with Procurement document instructions. Failure to do so may lead to disqualification.
- 7.2 Do provide the Bid on time, and in the required format. Remember that the date/time given for a response is the last date that it can be accepted; we are legally bound to disqualify late submissions.
- 7.3 Do ensure you have read all the training materials to utilise e-sourcing tool prior to responding to this Bid. If you send your Bid by email or post it will be rejected.
- 7.4 Do use Microsoft Word, PowerPoint Excel 97-03 or compatible formats, or PDF unless agreed in writing by the Buyer. If you use another file format without our written permission we may reject your Bid.
- 7.5 Do ensure you utilise the Emptoris messaging system to raise any clarifications to our ITQ. You should note that typically we will release the answer to the question to all bidders and where we suspect the question contains confidential information we may modify the content of the question to protect the anonymity of the Bidder or their proposed solution
- 7.6 Do answer the question, it is not enough simply to cross-reference to a 'policy', web page or another part of your Bid, the evaluation team have limited time to assess bids and if they can't find the answer, they can't score it.
- 7.7 Do consider who your customer is and what they want – a generic answer does not necessarily meet every customer's needs.
- 7.8 Do reference your documents correctly, specifically where supporting documentation is requested e.g. referencing the question/s they apply to.
- 7.9 Do provide clear and concise contact details; telephone numbers, e-mails and fax details.
- 7.10 Do complete all questions in the questionnaire or we may reject your Bid.
- 7.11 Do check and recheck your Bid before dispatch.

What makes a good bid – some simple do not's ☹

DO NOT

- 7.12 Do not cut and paste from a previous document and forget to change the previous details such as the previous buyer's name.
- 7.13 Do not attach 'glossy' brochures that have not been requested, they will not be read unless we have asked for them. Only send what has been requested and only send supplementary information if we have offered the opportunity so to do.
- 7.14 Do not share the Procurement documents, they are confidential and should not be shared with anyone without the Buyers written permission.
- 7.15 Do not seek to influence the procurement process by requesting meetings or contacting UK SBS or the Customer to discuss your Bid. If your Bid requires clarification the Buyer will contact you.
- 7.16 Do not contact any UK SBS staff or Customer staff without the Buyers written permission or we may reject your Bid.
- 7.17 Do not collude to fix or adjust the price or withdraw your Bid with another Party as we will reject your Bid.
- 7.18 Do not offer UK SBS or Customer staff any inducement or we will reject your Bid.
- 7.19 Do not seek changes to the Bid after responses have been submitted and the deadline for Bids to be submitted has passed.
- 7.20 Do not cross reference answers to external websites or other parts of your Bid, the cross references and website links will not be considered.
- 7.21 Do not exceed word counts, the additional words will not be considered.
- 7.22 Do not make your Bid conditional on acceptance of your own Terms of Contract, as your Bid will be rejected.

Some additional guidance notes

- 7.23 All enquiries with respect to access to the e-sourcing tool and problems with functionality within the tool may be submitted to Crown Commercial Service (previously Government Procurement Service), Telephone 0345 010 3503.
- 7.24 Bidders will be specifically advised where attachments are permissible to support a question response within the e-sourcing tool. Where they are not permissible any attachments submitted will not be considered.
- 7.25 Question numbering is not sequential and all questions which require submission are included in the Section 6 Evaluation Questionnaire.
- 7.26 Any Contract offered may not guarantee any volume of work or any exclusivity of supply.
- 7.27 We do not guarantee to award any Contract as a result of this procurement
- 7.28 All documents issued or received in relation to this procurement shall be the property of UK SBS.
- 7.29 We can amend any part of the procurement documents at any time prior to the latest date / time Bids shall be submitted through Emptoris.
- 7.30 If you are a Consortium you must provide details of the Consortiums structure.
- 7.31 Bidders will be expected to comply with the Freedom of Information Act 2000 or your Bid will be rejected.
- 7.32 Bidders should note the Government's transparency agenda requires your Bid and any Contract entered into to be published on a designated, publicly searchable web site. By submitting a response to this ITQ Bidders are agreeing that their Bid and Contract may be made public
- 7.33 Your bid will be valid for 60 days or your Bid will be rejected.
- 7.34 Bidders may only amend the Contract terms if you can demonstrate there is a legal or statutory reason why you cannot accept them. If you request changes to the Contract and UK SBS fail to accept your legal or statutory reason is reasonably justified we may reject your Bid.
- 7.35 We will let you know the outcome of your Bid evaluation and where requested will provide a written debrief of the relative strengths and weaknesses of your Bid.
- 7.36 If you fail mandatory pass / fail criteria we will reject your Bid.
- 7.37 Bidders are required to use IE8, IE9, Chrome or Firefox in order to access the functionality of the Emptoris e-sourcing tool.

- 7.38 Bidders should note that if they are successful with their proposal UK SBS reserves the right to ask additional compliancy checks prior to the award of any Contract. In the event of a Bidder failing to meet one of the compliancy checks UK SBS may decline to proceed with the award of the Contract to the successful Bidder.
- 7.39 All timescales are set using a 24 hour clock and are based on British Summer Time or Greenwich Mean Time, depending on which applies at the point when Date and Time Bids shall be submitted through Emptoris.
- 7.40 All Central Government Departments and their Executive Agencies and Non Departmental Public Bodies are subject to control and reporting within Government. In particular, they report to the Cabinet Office and HM Treasury for all expenditure. Further, the Cabinet Office has a cross-Government role delivering overall Government policy on public procurement - including ensuring value for money and related aspects of good procurement practice.

For these purposes, UK SBS may disclose within Government any of the Bidders documentation/information (including any that the Bidder considers to be confidential and/or commercially sensitive such as specific bid information) submitted by the Bidder to UK SBS during this Procurement. The information will not be disclosed outside Government. Bidders taking part in this ITQ consent to these terms as part of the competition process.

- 7.41 From 2nd April 2014 the Government is introducing its new Government Security Classifications (GSC) classification scheme to replace the current Government Protective Marking System (GPMS). A key aspect of this is the reduction in the number of security classifications used. All Bidders are encouraged to make themselves aware of the changes and identify any potential impacts in their Bid, as the protective marking and applicable protection of any material passed to, or generated by, you during the procurement process or pursuant to any Contract awarded to you as a result of this tender process will be subject to the new GSC from 2nd April 2014. The link below to the Gov.uk website provides information on the new GSC:

<https://www.gov.uk/government/publications/government-security-classifications>

UK SBS reserves the right to amend any security related term or condition of the draft contract accompanying this ITQ to reflect any changes introduced by the GSC. In particular where this ITQ is accompanied by any instructions on safeguarding classified information (e.g. a Security Aspects Letter) as a result of any changes stemming from the new GSC, whether in respect of the applicable protective marking scheme, specific protective markings given, the aspects to which any protective marking applies or otherwise. This may relate to the instructions on safeguarding classified information (e.g. a Security Aspects Letter) as they apply to the procurement as they apply to the procurement process and/or any contracts awarded to you as a result of the procurement process.

USEFUL INFORMATION LINKS

- [Emptoris Training Guide](#)
- [Emptoris e-sourcing tool](#)
- [Contracts Finder](#)
- [Tenders Electronic Daily](#)
- [Equalities Act introduction](#)
- [Bribery Act introduction](#)
- [Freedom of information Act](#)