

Domestic Tender

This is Request for Quotation from domestic (India-based) manufacturers, for **Supply of Liquid Nitrogen (LN₂)** on a **Rate Contract Basis** at Centre for Nano Science and Engineering (CeNSE) at IISc, Bangalore.

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Section 1 - Bid Schedule

1	Tender No	CeNSE/NNFC/2025/03
2	Tender Date	26/09/2025
3	Item Description	Supply of Liquid Nitrogen (LN₂) on a Rate Contract Basis
4	Tender Type	Two bid system Technical Bid (Part A) Commercial Bid (Part B)
5	Place of tender submission	GF 15, CeNSE Office, Centre for Nano Science and Engineering (CeNSE), Indian Institute of Science (IISc), Malleshwaram, Bangalore - 560012 Karnataka, INDIA.
6	Last Date & Time for submission of tender	17/10/2025, 5:30 PM.
7	For further clarification(contact details)	Gajendra M National Nanofabrication Centre, Centre for Nano Science and Engineering, Indian Institute of Science, Bangalore-560012 Email: gajendram@iisc.ac.in

Section 2 – Eligibility Criteria

Pre-qualification criteria:

1. The Bidder's firm should have existence for a minimum of 5 years. (Enclose Company Registration Certificate).
2. The Bidder should belong to either class 1 or class 2 supplier distinguished by their "local content" as defined by recent edits to GFR. They should mention clearly which class they belong to in the cover letter:
 - a) Class 1 supplier: Goods and services should have local content of equal to or more than 50%.
 - b) Class 2 supplier: Goods and services should have a local content of equal to or more than 20 % and less than 50%.
3. Purchase preference as defined by the recent edits to GFR (within the "margin of purchase preference") will be given to Class-1 supplier.
4. Quote should come only from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor.
5. The quotations should be on FOR-IISc Bangalore basis in INR only.
6. MSME can seek exemption to some qualification criteria. IISc follows GFR2017 for such details.
7. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per - Annexure 4.
8. The Bidder must do a site survey before submitting the tender to understand the site conditions and filling location and valve setups. An email request for site visit can be sent to the ID in contact details. The Bids without site visit will be considered disqualified.
9. The Bidder must not be blacklisted/banned/suspended or have a record of any service- related dispute with any organization in India or elsewhere. A declaration to this effect has to be given as per Annexure 3.
10. Bidders offering imported products will fall under the category of non-local suppliers. They cannot claim themselves as class-1 local suppliers/ class-2 local suppliers by claiming services such as transportation, insurance, installation, commissioning, training and other sales service support like AMC/CMC, etc., as local value addition.

11. The bidder should have supplied at least 5,00,000 m³ of Liquid Nitrogen as per technical specification to any industry for a period of 12 months against a single purchase order in any of the past 5 years, ending on the last day of the month previous to the one in which the tender is invited.
12. The bidder must have a minimum of two air separation units located within a 350 km radius, and one secondary or distribution hub within a 50 km radius.

Section 3 – Terms and Conditions

A) Submission of Tender:

1. All documentations in the tender should be in English.
2. Tender should be submitted in two envelopes (two bid systems).
 - a. Technical Bid (Part-A) – Technical bid consisting of all technical details and check list for conformance to technical specifications.
 - i. The technical proposal should contain a technical compliance table with 5 columns.
 - ii. The first column must list the technical requirements, in the order that they are given in the technical requirement below.
 - iii. The second column should provide specifications of the instrument against the requirement. Please provide quantitative responses wherever possible.
 - iv. The third column should describe your compliance with a “Yes” or “No” only. Ensure that the entries in column 2 and column 3 are consistent.
 - v. The fourth column should state the reasons/explanations/context for deviations, if any.
 - vi. The fifth column can contain additional remarks from the OEM. You can use this opportunity to highlight technical features, qualify response of previous columns, or provide additional details, compare your solution with that of your competitors or provide details as requested in the technical requirements table below.
 - b. Commercial Bid (Part-B) – Indicating item wise price for the items mentioned in the technical bid, **as per the format of quotation provided in tender**, and other commercial terms and conditions.

3. The technical bid and commercial bid should each be placed in separate sealed covers, superscribing on both the envelopes the tender no. and the due date. Both these sealed covers are to be placed in a bigger cover which should also be sealed and duly superscribed with the Tender No, Tender Description & Due Date.
4. The SEALED COVER superscribing tender number / due date & should reach the Main office, GF-15, Centre for Nanoscience and Engineering, Indian Institute of Science, Bangalore – 560012, India, on or before due date mentioned in the tender notice. In case due date happens to be holiday the tender will be accepted and opened on the next working day. If the quotation cover is not sealed, it will be rejected.
5. All queries are to be addressed to the person identified in “Section 1 – Bid Schedule” of the tender notice.
6. GST/other taxes, levies etc., are to be indicated separately. The BIDDER should mention GST Registration and PAN in the tender document (Indian Bidders only).
7. If price is not quoted in Commercial Bid as per the format provided in tender document the bid is liable to be rejected.
8. The Institute reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to the award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.
9. Incomplete bids will be summarily rejected.

B) Cancellation of Tender:

Notwithstanding anything specified in this tender document, the purchase committee, IISc Bangalore, in its sole discretion, unconditionally and without having to assign any reason, reserves the rights:

- a. To accept OR reject lowest tender or any other tender or all the tenders.
- b. To accept any tender in full or in part.
- c. To reject the tender, offer not confirming to the tender terms.

C) Validity of the Offer:

The offer shall be valid 60 Days from the date of opening of the commercial bid.

D) Evaluation of Offer:

1. The technical bid (Part A) will be opened first and evaluated.
2. Bidders meeting the required eligibility criteria as stated in Section 2 of this document shall only be considered for Commercial Bid (Part B) opening. Further, agencies not furnishing the documentary evidence as required will not be considered.
3. Pre-qualification of the bidders shall not imply final acceptance of the Commercial Bid. The agency may be rejected at any point during technical evaluation or during commercial evaluation. The decision in regard to acceptance and / or rejection of any offer in part or full shall be the sole discretion of IISc Bangalore, and decision in this regard shall be binding on the bidders.
4. The award of purchase-order will be subject to acceptance of the terms and conditions stated in this tender.
5. Any offer which deviates from the vital conditions (as illustrated below) of the tender is liable to be rejected:
 - a) Non-submission of complete offers.
 - b) Receipt of bids after due date and time and or by email / fax (unless specified otherwise).
 - c) Receipt of bids in open conditions.
6. In case any BIDDER is silent on any clauses mentioned in these tender documents, IISc Bangalore shall construe that the BIDDER had accepted the clauses as of the tender and no further claim will be entertained.
7. No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
8. The lowest bid will be calculated based on the total price of all items tendered.

E) Purchase Order:

1. The rate contract will be signed for the period of one year on the bidder whose bid is accepted by IISc based on the terms & conditions mentioned in the tender document.
2. The quantity of the items in tender is only indicative. IISc, Bangalore reserves the right to increase /decrease the quantity of the items depending on the requirement.

3. If the quality of the product and service provided is not found satisfactory, IISc, Bangalore reserves the right to cancel or amend the contract.

F) Delivery:

1. **Delivery Location:** Centre for Nano Science and Engineering. IISc. Bengaluru.
2. **Delivery Schedule:** Supplier must ensure LN₂ availability **daily and complete the filling within 24 hours** after notification through email or telephone, even on holidays or during emergencies.
3. **Emergency Deliveries:** Must be completed within **4 hours** of intimation.
4. Supplier to provide all **manpower, hoses, safety devices, PPEs** and accessories needed for safe transfer.
5. The supplier is responsible for ensuring **no interruption in LN₂ supply**, considering research and cleanroom dependencies.

G) Quality assurance

1. Products must meet or exceed **technical specifications** at every delivery.
2. Suppliers must maintain **records of batches, test reports, and delivery logs**.
3. Institute reserves the right to conduct **random purity tests** at accredited third-party labs.
4. In case of non-compliance or contamination, the entire batch will be **rejected**, and supplier shall bear all associated costs.

H) Payment Terms:

The payments to non-domestic vendors will be through a Letter of Credit and milestone of the payment will be determined after the mutual discussions with the successful bidder. As per GFR no advance payment can be made to domestic vendors, unless an equal amount of bank guarantee is provided.

I) Statutory Variation:

Any statutory increase in the taxes and duties subsequent to bidder's offer, if it takes place within the original contractual delivery date, will be borne by IISc, Bangalore subject to the claim being supported by documentary evidence. However, if any decrease takes place the advantage will have to be passed on to IISc, Bangalore.

J) Disputes and Jurisdiction:

Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Bangalore, India.

K) General:

1. All amendments, time extension, clarifications etc., within the period of submission of the tender will be communicated electronically. No extension in the bid due date/time shall be considered on account of delay in receipt of any document(s) by mail.
2. The bidder may furnish any additional information, which is necessary to establish capabilities to successfully complete the envisaged work. It is however, advised not to furnish superfluous information.
3. All imported items should be quoted in the currency of the country of origin, and all locally sourced items should be quoted in Indian Rupees.
4. Any information furnished by the bidder found to be incorrect, either immediately or at a later date, would render the bidder liable to be debarred from tendering/taking up of work in IISc, Bangalore.

Section 4: Safety & compliance requirements

The handling, transportation, and delivery of **Liquid Nitrogen (LN₂)** involves significant safety risks due to its cryogenic nature and potential hazards. To mitigate these risks and ensure the highest level of personnel and infrastructure safety, the following **mandatory safety and compliance requirements** must be met and maintained throughout the contract period.

A) Regulatory & Licensing Compliance

1. Supplier must possess valid **PESO (Petroleum and Explosives Safety Organization)** and local licenses for production, storage, and transportation of cryogenic liquids.
2. Transportation must comply with the **Gas Cylinder Rules, 2016, Explosives Act, 1884, Motor Vehicles Act**, and other relevant central/state laws.
3. Vehicles and storage vessels must be **hydrostatically tested, certified, and registered** for LN₂ transportation.

B) Vehicle Safety Requirements

All cryogenic transport vehicles must be:

1. **GPS-enabled and tracked in real-time.** Tracking access must be shared with the institute for monitoring delivery.
2. Equipped with **high-resolution CCTV cameras** for recording loading/unloading activities. Footage must be stored for at least 30 days and produced upon request.
3. Operated under a **Two Driver Policy** for long-distance or inter-city transportation to minimize fatigue-related incidents. With heavy driving licence with minimum experience of 3 years and Hazardous driving licence of minimum 1 year.
4. Displaying proper **hazard labels, UN numbers, and emergency response placards.**

C) Trained Personnel

1. All personnel involved in LN₂ delivery and transfer must be:
 - a. **Trained in cryogenic material handling and emergency response procedures.**
 - b. Familiar with **site-specific safety protocols** of the receiving institution.
2. **Training records and certifications** (valid within the last 12 months) of all operators/drivers/technicians must be submitted at the time of contract and updated regularly.

D) Personal Protective Equipment (PPE)

The following **mandatory PPE** must be worn by all personnel involved in delivery and transfer at the site:

PPE Item	Specification
Cryogenic Gloves	EN 511/ISO-compliant insulated gloves for LN ₂
Face Shield	Full-face shield with ANSI/EN safety certification

Safety Goggles	Chemical-splash resistant
Cryogenic Apron	Thermal and chemical resistant
Safety Shoes	Anti-slip, steel toe, cryogenic resistant
High-Visibility Jacket	Fluorescent with reflective strips
Hard Hat	IS/ANSI compliant helmet

- PPE must be in **good condition, and ISO certified, and non-expired**.
- Institute reserves the right to **deny access to delivery crew** not wearing full PPE.

E) On-Site Safety Procedures

1. Supplier shall **coordinate with institute safety officers** during each delivery to ensure:
 - a. Pre-delivery safety checks (valves, hose integrity, PPE).
 - b. Controlled decanting of LN₂ into institute tanks.
 - c. Use of **earthing cables, safety cones, and area barricading** during unloading.
2. All incidents or near-misses must be **reported immediately** and documented within 12 hours.

F) Documentation & Records

Supplier must provide the following documents along with each delivery:

1. **Purity certificate, batch report, and weight slip.**
2. Copy of **driver/operator license** and **training certificate**.
3. **Pre-delivery checklist** and **post-delivery log** signed by the institute representative.

G) Emergency Preparedness

1. Supplier shall maintain and make available:
 - a. **24x7 emergency contact numbers.**
 - b. Vehicle-mounted **spill control kits, first aid kit, and fire extinguisher.**
2. Drivers/operators must be trained to handle:

- a. **LN₂ exposure accidents**, frostbite first aid.
- b. Minor leaks and **emergency disconnection procedures**.

H) Audits & Inspection

The institute reserves the right to:

1. Conduct **random safety inspections** of transport vehicles and personnel.
2. Verify **CCTV footage, GPS logs, and delivery records**.
3. Carry out **third-party safety audits** of the supplier's facility.

I) Environmental Responsibility

1. LN₂ spills must be managed using **eco-safe neutralization practices**.
2. Supplier is liable for any **environmental damage** or unsafe disposal of cryogenics.
3. All actions must be in accordance with the **Environment (Protection) Act, 1986** and **Hazardous Waste Management Rules, 2016**.

Section 5 – Technical Specifications

Sl No	Description	Specification	Compliance (Yes/No)
1	Liquid Nitrogen	Electronics grade	
2	Purity	≥ 99.998 %	
3	Impurities	Oxygen ≤ 1 ppm, Water ≤ 1 ppm	
4	Dew point temperature	-75 °C	
5	Boiling point	-196°C	
6	State at Delivery	Liquid, cryogenic conditions	
7	Personal Protective Equipment (PPE)	As per section 4, D.	

8	Vehicle Safety Requirements	<p>All cryogenic transport vehicles must be:</p> <ol style="list-style-type: none"> 1. GPS-enabled and tracked in real-time. Tracking access must be shared with the institute for monitoring delivery. 	
		<ol style="list-style-type: none"> 2. Equipped with high-resolution CCTV cameras for recording loading/unloading activities. Footage must be stored for at least 30 days and produced upon request. 	
		<ol style="list-style-type: none"> 3. Operated under a Two Driver Policy for long-distance or inter-city transportation to minimize fatigue-related incidents. 	
		<ol style="list-style-type: none"> 4. Displaying proper hazard labels, UN numbers, and emergency response placards. 	
9	Regulatory & Licensing Compliance	<ol style="list-style-type: none"> 1. Suppliers must possess valid PESO (Petroleum and Explosives Safety Organization) licenses for production, storage, and transportation of cryogenic liquids. 	
		<ol style="list-style-type: none"> 2. Transportation must comply with the Gas Cylinder Rules, 2016, Explosives Act, 1884, Motor Vehicles Act, and other relevant central/state laws. 	
		<ol style="list-style-type: none"> 3. Vehicles and storage vessels must be hydrostatically tested, certified, and registered for LN₂ transportation. 	

10	Tank level monitoring	The vendor must install a level detection sensor and automatically send notification to the delivery plant. The set up must work on solar power and GSM to eliminate the electrical wiring.	
11	Production unit locations	The bidder must have a minimum of two separation units located within a 350 km radius, and one secondary or distribution hub within a 50 km radius.	
12	Delivery	As per section 3, F	

Section 6- Technical Bid

The technical bid should furnish all requirements of the tender along with all annexures and listed below in this section and submitted to:

The Chair,
Centre for Nano Science and Engineering (CeNSE),
Indian Institute of Science (IISc),
Malleshwaram, Bangalore - 560012
Karnataka, INDIA.

Attention: GAJENDRA M, NNFC, 080-22933319

Technical bid should have the following:

1. Technical compliance sheet for technical specification as per section 5.
2. Supporting document as per section 2.
3. Supporting document as per section 3.
4. Supporting document as per section 4.

Annexure-1:

Details of the Bidder

The bidder must provide the following mandatory information & attach supporting documents wherever mentioned:

Sl. No	Items	Details
1.	Name of the Bidder	
2.	Nature of Bidder (Attach attested copy of Certificate of Incorporation/ Partnership Deed)	
3.	Registration No/ Trade License, (attach attested copy)	
4.	Registered Office Address	
5.	Address for communication	
6.	Contact person- Name and Designation	
7.	Telephone No	
8.	Email ID	
9.	Website	
10.	PAN No. (attach copy)	
11.	GST No. (attach copy)	

Signature of the Bidder

Name

Designation, Seal

Date:

Annexure-2:

Declaration regarding experience

To,
The Chairman,
Centre for Nano Science and Engineering (CeNSE),
Indian Institute of Science (IISc),
Malleshwaram, Bangalore - 560012
Karnataka, INDIA.

Ref: Tender No:

Dated:

Supply of Liquid Nitrogen (LN₂) on a Rate Contract Basis

Sir,

I have carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company / firm has ____ years of experience in supplying _____

(Signature of the Bidder)

Printed Name Designation, Seal

Date:

Annexure–3:

Declaration regarding track record

To,
The Chairman,
Centre for Nano Science and Engineering (CeNSE),
Indian Institute of Science (IISc),
Malleshwaram, Bangalore - 560012
Karnataka, INDIA.

Ref: Tender No:

Dated:

Supply of Liquid Nitrogen (LN₂) on a Rate Contract Basis

Sir,

I have carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company/ firm is not currently debarred / blacklisted by any Government / Semi Government organizations / institutions in India or abroad. I further certify that I am competent officer in my company / firm to make this declaration.

OR

I declare the following:

Sl.No	Country in which the company is Debarred /blacklisted / case is Pending	Blacklisted / debarred by Government / Semi Government/Organizations /Institutions	Reason	Since when and for how long

(NOTE: In case the company / firm was blacklisted previously, please provide the details regarding the period for which the company / firm was blacklisted and the reason/s for the same).

Yours faithfully
(Signature of the Bidder)

Name

Designation, Seal:

Date:

Annexure –4:

Declaration for acceptance of terms and conditions

To,
The Chairman,
Centre for Nano Science and Engineering (CeNSE),
Indian Institute of Science (IISc),
Malleshwaram, Bangalore - 560012
Karnataka, INDIA.

Ref: Tender No:

Dated:

Supply of Liquid Nitrogen (LN₂) on a Rate Contract Basis

Sir,

I have carefully gone through the Terms & Conditions as mentioned in the above referred tender document. I declare that all the provisions of this tender document are acceptable to my company. I further certify that I am an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder)

Name

Designation, Seal:

Date:

Annexure –5:

Details of items quoted:

- a. Company Name
- b. Product Name
- c. Part / Catalogue number
- d. Product description / main features
- e. Detailed technical specifications.
- f. Remarks

Instructions to bidders:

1. Bidder should provide technical specifications of the quoted product/s in detail.
2. Bidder should attach product brochures along with technical bid.
3. Bidders should clearly indicate compliance or non-compliance of the technical specifications provided in the tender document.

Annexure –6:

***(To be submitted in the company letter head by supplier)**

Declaration of Local Content by Local supplier

Subject: Public Procurement (Preference to Make In India)

References:

Preference to Make in India including counter offering will be as per the Public Procurement (Preference to Make in India), Order 2017 available in the following links <https://dipp.gov.in/publicprocurements>

http://dipp.nic.in/sites/default/files/publicProcurement_MakeinIndia_15June2017.pdf

http://dipp.nic.in/sites/default/files/Revised-PPP-MII-Order-2017_28052018.pdf

[https://dipp.gov.in/sites/default/files/PPP-](https://dipp.gov.in/sites/default/files/PPP-MII%20Order%20dt%2029th%20May%2019_0.pdf)

[MII%20Order%20dt%2029th%20May%2019_0.pdf](https://dipp.gov.in/sites/default/files/PPP-MII%20Order%20dt%2029th%20May%2019_0.pdf)

<https://dipp.gov.in/sites/default/files/PPP%20MII%20Order%20dated%204th%20June%202020.pdf>

We hereby declare with reference to above subject and references that M/s (Tick whichever is applicable as below)

"Class-I local supplier" meeting the requirement of minimum local content equal to 50% (fifty percent) or more defined in the above government notification for the goods and services
(or)

"Class-II local Supplier" meeting the requirement of local content 20% to less than 50% (fifty percent) defined in the above government notification for the goods and services

(or)

Non Local supplier (If not belonging to Class-I & Class II)

Please mention the details against the following:

Enquiry no:

Type of Supplier (Class-I/Class-II):

Product:

Project:

Details of location at which local value addition will be made is as follows:

We also understand that the false declarations will be in breach of the code of Integrity under rule 175(1)(i) (h) of the General financial rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Authorized Signature M/s-----

(Signature and seal)

Place:

Date:

Section 7- Commercial Bid

The commercial bid should be furnished with all requirements of the tender with supporting documents as mentioned under:

S.No	Description	Quantity	Unit Price	Sub total
1.	Price of LN2 per M3 in INR (including the cost of transportation)			
2	Tax			
	Total			

Any additional items

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total

Addressed to

The Chairman,
Centre for Nano Science and Engineering (CeNSE),
Indian Institute of Science (IISc),
Malleshwaram, Bangalore - 560012
Karnataka, INDIA.

Attention: GAJENDRA M, NNFC, 080-22933319

Section 8 – Checklist

(This should be enclosed with technical bid- Part A)

The following items must be checked before the Bid is submitted:

1. Sealed Envelope “A”: Technical Bid

1. Section 5- Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures and other documents.

- Annexure 1: Bidders details
- Annexure 2: Declaration regarding experience
- Annexure 3: Declaration regarding clean track record
- Annexure 4: Declaration for acceptance of terms and conditions

- e. Annexure 5: Details of items quoted
- f. Annexure 6: Declaration Of Local Content by Local supplier

2. Copy of this tender document duly signed by the authorized signatory on every page and sealed.

2. Sealed Envelope “B”: Commercial Bid

1. Section 7: Commercial Bid

Your quotation must be submitted in two envelopes: Technical Bid (Envelope A) and Commercial Bid (Envelope B) super scribing on both the envelopes with Tender No. and due date and both of these in sealed covers and put in a bigger cover which should also be sealed and duly super scribed with Tender No., Tender description & Due Date.