

INDIAN INSTITUTE OF TECHNOLOGY DELHI
CENTRAL RESEARCH FACILITIES (CRF)
Liquid Nitrogen Laboratory

4 Dec 2014

Due date for submission: 18 Dec, 2014

NIQ Ref.: CRF/LN2/T1

Subject: Notice Inviting Quotations (NIQ)

Sealed quotations are invited from the manufacturers of Liquid Nitrogen (LN₂), hence after referred to as **SUPPLIER**, for setting up an agreement with IIT Delhi, hence after referred to as **IITD**, as per following desired specifications, and terms and conditions.

A. Broad scope of supplies and technical specifications:

Part-I:	Description	:Supply and Maintenance of LN₂ Storage Tank at IIT Delhi premises on monthly chargeable basis
	Quantity	: 01 (One only)
S. No.	<i>Parameter</i>	Specification
1.	<i>Storage Tank capacity (liters)</i>	990-1000 liters of Liquid Nitrogen
2.	<i>Indication of amount of LN₂ in the tank</i>	The tank should have provision for digital display of level/quantity of LN ₂ at any point of time
3.	<i>Boil off rate (in %/day at STP)</i>	≤ 2 %
4.	<i>Valves, Regulators and Gauges</i>	The tank should be fitted with safety-valve, over-flow/vent valve, liquid delivery valve, appropriate high pressure regulator, pressure measuring gauge, etc.
5.	<i>Handling convenience</i>	The tank must be compatible to be handled conveniently using fork-lift, mobile crane, chain-pulley arrangement
Part-II:	Description:	Supply and Filling of LN₂ into the supplied Storage Tank
1.	<i>Monthly LN₂ requirement of IITD</i>	As of today, IITD requires 1500 liters of LN ₂ . However, the demand is expected to grow to 2500-3000 liters in next 3 years. The SUPPLIER must be able to fulfill this monthly requirement.

B. Terms for agreement: The bidders have to clearly indicate their consent and provide necessary details, wherever required, in respect of the following terms for finalizing the agreement document.

1.	<i>About the bidders</i>	The bidders should have their own LN ₂ plant, and should not merely be a distributor. An undertaking to this effect and full company profile must be submitted together with the quotation.
2.	<i>Supply of Storage Tank</i>	The tank supplied will be sole-property of SUPPLIER, and IITD will bear the monthly facility charges.
3.	<i>Supply of necessary items in the scope of delivery of Storage tank</i>	The SUPPLIER will have to supply all the items necessary to make the system complete for smooth LN ₂ -delivery on day-to-day basis to the various users within IITD through the supplied storage tank in their portable containers of 5-100 liters capacity.
4.	<i>Maintenance of Storage tank</i>	The SUPPLIER should ensure and confirm the maintenance of the storage tank at all time during the agreement period by stating this in their offer along with the alternative arrangement in during its maintenance.
5.	<i>Necessary site preparation details for housing the storage tank.</i>	The SUPPLIER will have to provide, in their quotation, the required details (in respect of minimum covered and fenced area, proximity to road, water, electricity outlet, etc.) for preparing the site for commissioning of the storage tank at IIT Delhi.
6.	<i>Supply of Storage tank, Installation and commencement of rental charges for storage tank</i>	<p>a) Once the site is made ready by IITD, the SUPPLIER will be informed about its readiness for supplying the storage tank. The SUPPLIER, in consultation with IITD, will inform the installation schedule and carry out the same subsequently.</p> <p>b) The monthly fixed facility charges will be counted with effect from successful installation of storage tank complete in all respect.</p>
7.	<i>Monthly Fixed Facility charges for Storage tank</i>	In the quotation, the SUPPLIER should clearly specify the <i>monthly fixed facility charges and associated taxes</i> there at, towards the cost and its maintenance of storage tank at IIT Delhi.
8.	<i>Rate at which Liquid Nitrogen will be purchased over 3 years</i>	In the quotation, the SUPPLIER should clearly specify the year-wise rate (and associated taxes, etc.) at which the liquid nitrogen will be chargeable to IITD, by quoting separate prices (in Rs./kg) for the Year-1, Year-2 and Year-3, respectively.
9.	<i>Revision of Monthly Fixed Facility charges</i>	Once quoted, the monthly fixed facility charges will not be revised under any circumstances till the completion of agreement (i.e., 3 years).
10.	<i>Price variation in the supply of LN₂</i>	The year-wise rates quoted for supply of LN ₂ will not be increased during the agreement-period under any circumstances.

11.	<i>Delivery of LN₂</i>	<p>(a) The delivery of LN₂ must be ensured by the SUPPLIER within 48 hrs after the requirement-request is communicated by IIT Delhi to the SUPPLIER to ensure regular and continuous supply on day-to-day basis.</p> <p>(b) In case the SUPPLIER fails to deliver the liquid nitrogen within 72 hours after the advance intimation from IITD, the SUPPLIER is liable to pay all charges incurred by IITD for the alternate purchase of liquid nitrogen.</p>
12.	<i>Weighing of LN₂ supplied & Billing</i>	<p>a) The weight will be calculated from the difference in weight (in kgs) of the tanker carrying the LN₂ (to be supplied) before and after the decanting into the storage tank at IIT Delhi.</p> <p>b) The weighing of the LN₂ supplied will be done by SUPPLIER on weighing bridge (<i>dharamkanta</i>) and the bills will be raised with prior intimation of the 2 weight measurements as specified in (a) above.</p> <p>c) The billing of the LN₂ supplied will be in units of <i>kgs</i> or <i>liters</i> (For conversion, we shall use: 1 kg of LN₂=1.249 liters LN₂).</p>
13.	<i>Payment of Facility charges & LN₂</i>	The payments towards the fixed facility charges as well as liquid nitrogen will be periodically made by IITD after every cycle of 3-month duration (i.e., 4 times in a year).
14.	<i>Time when decanting of LN₂ will be done at IIT Delhi</i>	For purpose of monitoring/management/issues related with the safety, the SUPPLIER must specify in their offer about the tentative time of reaching of the tanker at IIT Delhi site for decanting.
15.	<i>Agreement-period</i>	<p>a) The agreement is initially for a period of 3 years, subject to satisfactory and smooth supply of LN₂ as reviewed at the end of the each year from date of commencement of the agreement.</p> <p>b) The commencement of the agreement will be taken as date of successful installation and commissioning of the storage tank at IITD in good condition and to the satisfaction of the purchaser.</p>
16.	<i>Termination of Agreement</i>	The agreement can be terminated by the IITD or the SUPPLIER at any point of time for any reason whatsoever. However, for this, the party (IITD or SUPPLIER) willing to terminate the agreement will have to indicate the same to other party by giving a notice period of minimum of 3 months duration . During this notice period, the same conditions will be followed by both the parties undergoing the agreement.
17.	<i>Applicable Law</i>	The agreement shall be interpreted in accordance with the laws of the Union of India. The place of jurisdiction would be New Delhi (Delhi) INDIA.

C. Evaluation of the bids: The bids submitted will be evaluated for *technical acceptance* subject to compliance of following criteria:

- i. The quotation must be accompanied by full details of minimum 3 customers (in terms of Name and Telephone no. of the contact person and their Company/Institute, etc.) in Delhi NCR region with whom the bidder have entered into similar agreement for supply of LN₂ in their storage tanks installed at customer's site.
- ii. Compliance to the specifications of the parameter listed in Part-I(1-5), and Part-II(1) and agreement terms listed at S. No. 1 to 17 in section-B above.

The *financial comparison* of the technically accepted quotations will be made on the basis of the **total cost** taking account of the following **two** components:

- a) **Fixed facility charges** towards the storage tank for a total period of **3 years**, and
- b) Cost of the projected year-wise LN₂ requirement over 3 years which is to be evaluated @ year-wise price (quoted in the offer) as per following table:

(LN ₂ requirement assumed to grow @ 20% per year)	Yearly LN ₂ requirement	
	(in liters)	(in kg*)
Year-1 @ 1500 liters/month	18000	14412
Year-2 @ 1800 liters/month	21600	17294
Year-3 @ 2100 liters/month	25200	20176

(*Calculated using the conversion formula, i.e., **1 kg of LN₂=1.249 liters LN₂**)

D. OTHER TERMS & CONDITIONS

Submission of quotation	The quotation should consist of 2 parts, namely the technical-bid and commercial-bid. These two parts (each sealed in separate envelopes) be then sealed in one bigger envelope mentioning our N.I.Q. REFERENCE AND DUE DATE FOR OPENING on the envelope itself, which should be submitted to the undersigned before the due date.
Validity of quotation	Quotation will be considered valid for 3 months from the date of receipt unless otherwise stated.
Payment Terms	<ol style="list-style-type: none"> a) The payment toward the storage tank shall be made by IITD against delivery, inspection, successful installation and commissioning of the storage tank at IITD, and as specified at S.No. 13 above in section-B. b) The payment toward the supply of Liquid Nitrogen will be made as specified at S.No. 13 above in section-B.
Discount/ rebates	Special discount/rebate wherever admissible, keeping in view that the supplies are being made for Educational purpose in respect of Public Institution of National importance, may please be indicated.
Company Profile	The bidder must attach with the offer a detailed company profile .

Printed brochures/web-site links	The printed brochures and website link detailing the technical specifications of the storage tank (tank-capacity, boil off rate, etc.) to be supplied and also the photographs of the liquid nitrogen plant, storage tank to be supplied <u>MUST</u> be provided in the offer, failing which the quotation shall not be considered.
Correspondence	No correspondence regarding acceptance/rejection of a quotation will be entertained.
Acceptance/ Rejection of bids & Institute's right	The purchase finalization committee reserves the right to reject any or all offers without assigning any reason. The discretion for increasing or decreasing of the quantities demanded also vests with the Institute.

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