

Department of Chemistry

Indian Institute of Technology Delhi, Hauz Khas, New Delhi-110 016

Notice Inviting Quotations (NIQ) for the Purchase of a Liquid Nitrogen Plant

Quotations (separate sealed envelopes of technical and commercial bids kept together in a single sealed outer envelope) are invited for the purchase of a “***Liquid Nitrogen Plant***” as per the specifications given below. Your sealed quotations should reach the address given below at the latest by 5 p.m. (IST) on 26-03-2012 with the superscription “***Quotation for a Liquid Nitrogen Plant due on 26-03-2012***”:

Dr. S. Nagendran,
Department of Chemistry
Indian Institute of Technology-Delhi (IIT-Delhi)
Hauz Khas, New Delhi-110 016
E-mail: sisn@chemistry.iitd.ac.in

Technical Specifications for the Liquid nitrogen plant:

Capacity of liquid nitrogen production	:	At least 140 liters per day at 3 barg
Purity	:	Maximum should be 99.99%
Space occupied by the complete plant	:	Should be accommodated in a room of 12 (l) x 12 (w) x 10 (h) feet size
Plant type	:	<i>Preferably</i> mounted on a single platform
Liquid nitrogen storage tank details	:	At least 200 liters capacity with controllers, level indicators, and pressure withstanding capacity of 0.5 to 3 barg
Time required to start producing liquid nitrogen from the starting time	:	Should be within 15 minutes
Maintenance gap	:	Not less than 5000 hours of operation
Power supply	:	Should work on Indian power ratings and all the power ratings should be mentioned clearly. Preference will be

		given for a plant that consumes less power
System control and operation	:	Preference will be given for a fully automated unit with PLC, completely integrated, and controllable through a single switch. It should not include purging and defrosting at any moment of operation
Operation temperature	:	Normal operation at least up to 45 °C

All the necessary items such as chiller, compressor, etc. and other accessories for making the unit complete and functional should be of supplied. Further, all these items should be of principal manufacturer's own product only. All the consumable items/parts required for the first three years of operation/maintenance and a comprehensive onsite warranty for the same period should be given. Compliance of the system to various international safety standards should be given elaborately.

Optional Accessories:

Voltage stabilizer of suitable capacity for the complete system	:	1 No.
Complete set of tools for repair, maintenance, and servicing	:	1 No.
Liquid nitrogen cryocan (~ 20 L capacity) for transporting liquid nitrogen from the plant	:	4 No.
Liquid nitrogen cryocan (~ 50 L capacity) for transporting liquid nitrogen from the plant	:	1 No.
Liquid nitrogen cryocan (~ 100 L capacity) for transporting liquid nitrogen from the plant	:	1 No.
Liquid nitrogen transfer pump	:	1 No.
Safety equipments for handing liquid nitrogen	:	1 Set

Terms and Conditions:

1. Please submit the TECHNICAL and FINANCIAL bids in separate sealed envelopes. Mark the two envelopes clearly as "Technical Bid" and "Financial Bid". Both the sealed envelopes should be sent in a single sealed envelope, with the marking "Quotations for a

Liquid Nitrogen Plant due on 26/03/2012” on the top. The quote should reach the following address on or before 26/03/2012 (up to 5.00 PM).

S. Nagendran
Assistant Professor
Department of Chemistry
Indian Institute of Technology – Delhi (IIT Delhi)
Hauz Khas, New Delhi - 110016

2. Please quote both FOB and CIF (New Delhi) prices. Include the installation charges also.
3. Quote should be in Indian rupees as well as international currency and be valid for at least three months.
4. Attach all the relevant technical literature and a list of similar installations done in India.
5. A minimum of three years comprehensive onsite warranty should be provided. Also, include warranty/AMC for the next three years.
6. Mention if you can provide any technical support like training of IIT Delhi personnel at IIT Delhi or in your factory. Kindly mention about this in the technical bid.
7. If the quote is being submitted by the representative of the Principals/manufactures themselves, a valid Agency ship/Dealership Certificate authorizing the agent to quote to IIT Delhi on behalf of the Principals should be enclosed.
8. The Institute reserves the right to accept/reject any/all quotations without assigning any reasons thereof.
9. Complete set of manuals for the operations and servicing of equipment should be given. All circuit diagrams, other mechanical, and electrical schematics must be provided to main unit, sub systems, and accessories.
10. Spare set - A complete set of spares and consumables should be supplied for three years of trouble free operation.
11. Delivery period: Within 5 months from the receipt of PO.
12. Clearly specify the installation requirements – such as space, power, frequency, environment (temperature and humidity) etc.
13. If the items quoted are proprietary in nature, please enclose proprietary certificate from the principals stating “certified that ----- is a proprietary item of M/s. ----- and no other manufacturer make these items”.
14. If the bidder is Indian agent, the agency certificate should be enclosed.
15. Please produce compliance certificate for the specification with suitable details.

16. Please ensure that the Indian agent has been enlisted with the Department of Expenditure, evidence may please be attached.
17. The details regarding the service network of the company in India should be clearly mentioned in the technical bid.