



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA
ROURKELA – 769 008, ODISHA

Advertised Tender Enquiry

Department: CIF

Tender notification no: - NITR/PW/CIF/2019/96

Date: 21/02/2019

Important Dates

To

**Through
CPP Portal
(e-procurement)**

Event	Date	Time
Pre-bid Conference	NA	NA
Last Date of submission of bid	14/03/2019	11:00 AM
Date of opening of technical bid	15/03/2019	11:00 AM

Dear Sir,

We intend to purchase the commodities specified below and invite quotations in accordance with the terms and conditions detailed in the bid document. If you are interested, kindly send your offer with prices and complete terms within the time mentioned above.

For any clarification:

ATTENTION:

PIC: Prof. Suman Ghosh

Department of Mechanical Engineering
National Institute of Technology Rourkela
Rourkela – 769 008, Odisha
Phone: 0661 - 2462531

Yours sincerely,

Name: Prof. Suman Ghosh
PIC, Centre for Cryogenic &
Superconducting Engineering, NIT Rourkela

Encl:

- (1) Schedule of requirement, specifications, dates etc.**
- (2) Bid document containing detail terms and conditions.**

1. Schedule of requirements

Item No	DESCRIPTION	Quantity
1	Liquid Nitrogen Plant with Accessories (24×7×365 – Continuous operation)	1 Unit

2. Specifications and allied Technical Details

As per the specification mentioned in Annexure I

3. Format of Quotation (tick appropriate box)

It is a two-part bid with separate techno-commercial and price bids.

4. The bid should be submitted through <https://eprocure.gov.in/eprocure/app>

5. Quotations should be valid for a period of **90 days** from the closing date of the bid.

6. Some important dates:

i. Pre-bid Conference	Date: NA	Time: NA
ii. Last date for submission of Bid:	Date: 14/03/2019	Time: 11:00 AM
iii. Date of opening of Technical Bid:	Date: 15/03/2019	Time: 11:00 AM

7. **Warranty** (i) Comprehensive warranty for 3 years including spares and consumables must be provided **.

8. **GST:** For indigenous items, GST will be 5% as the equipment will be used for research purpose and Institute will provide DSIR certificate for the same.

9. **Bid Security and Tender Cost:** EMD (Earnest Money deposit) in shape of Banker's cheque/DD (Demand Draft) for **INR 1, 20,000/- (One lakh, twenty thousand Only)** and Tender Cost (Non- refundable) in the form of DD for **INR 1,000/- (Rupees One thousand Only)** in favor of Director, NIT Rourkela Payable at Rourkela from any Scheduled Commercial Bank except Co-operative and Gramin bank. And Banker's cheque/DD for the EMD should remain valid for a period of 45 days beyond the bid validity period from the date of opening of bids. EMD of unsuccessful bidders should be return to them at the earliest and latest on or before the 30th days after the award of the contract. EMD and Tender Cost should reach physically through speed post/ register post/courier, containing in an envelope & superscripted with subject, tender reference number addressing to **Registrar, NIT Rourkela- 769008, Odisha; Attention: Prof S Ghosh (ME) on or before 15/03/2019 at 11:00 AM.**

10. **Performance Security:** Rs. 3,00,000/- (Rupees Three Lakh Only) in shape of Bank Guarantee/Demand Draft (DD) in favor of Director, NIT Rourkela payable at Rourkela from any Scheduled Commercial Bank except Co-operative and Gramin bank. Performance security should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the supplier including warranty obligation. And EMD (Earnest Money deposit) amount of successful bidder will be returned after the receipt of performance security in case of award of contract to successful bidder.

- 11.** Please go through the enclosed "bid document" carefully for other bidding instructions.
- 12.** Please send your quotations through <https://eprocure.gov.in/eprocure/app>
- 13.** For technical details, you may contact

Prof. Suman Ghosh

Department of Mechanical Engineering,

National Institute of Technology,

Rourkela - 769 008

Phone: 0661 - 2462531

E-mail: ghoshs@nitrkl.ac.in/ghoshsuman2000@gmail.com

NB: ***Please furnish your Dealership Certificate (must) and Proprietary Nature Certificate (If applicable)***



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA
ROURKELA – 769 008, ODISHA

BID DOCUMENT

1. Instructions to the bidders

- 1.1 Bids are invited on behalf of the Director, National Institute of Technology (NIT), Rourkela – 769 008, Orissa, from the intending bidders for supply of the goods/stores/ equipment for the Institute as detailed in the enquiry letter.
- 1.2 The bidders should quote their offer/rates in **BOQ** in clear terms without ambiguity.
- 1.3 In case of any discrepancy between the rates in figures and that in words, the rate in words will be accepted as correct.
- 1.4 The last date for receipt of the bid is marked in the enquiry.
- 1.5 The bids should be uploaded in <https://eprocure.gov.in/eprocure/app> Please follow the guidelines of the site.
- 1.6 If a prospective bidder requires any clarification in regard to the bidding documents, he may make a request the concerned officer or faculty member at least 15 days before the deadline for receipt of bids.
- 1.7 Bids received after the deadline of receipt indicated in para 1.4 above, shall not be taken in to consideration.
- 1.8 Each bidder shall submit only one bid. A bidder, who submits more than one bid, shall be disqualified and considered non-responsive.
- 1.9 (In respect of high value plant, machinery etc. of a complex and technical nature). The bids may be submitted in two parts, viz., technical bid and financial bid.
- 1.10 The bidder has to sign in full at all pages of the scanned part of the bidding document. No over-writing in those pages is acceptable.

2. Conditions of the bid

- 2.1 The rates quoted should preferably be net, inclusive of packing, forwarding, freight, Insurance and all other incidental charges excluding taxes. In case these charges are quoted extra in addition to the quoted rates, the amount thereof or Ad Valorem rate must be specified. Packing, forwarding, freight, entry tax etc., when quotes separately are reimbursable at actual. If external agencies are employed, their receipts must be enclosed with the invoice.
- 2.2 Duties and Taxes are to be quoted separately. Ad Valorem rates thereof should be clearly indicated with reference to the relevant Acts and Rules.

It may be noted that the Institute is availing custom duty exemption in terms of Notification no 51/96-Customs dt. 23.07.1996, Notification No. - 47/2017-Integrated Tax (Rate) dt. 14.11.2017 and Notification No- 45/2017- Central tax (Rate) dt. 14.11.2017[Vid Registration No.: TU/V/RG-CDE (227)/2016, dated: 13.11.2018].

- 2.3 The goods are required to be delivered at the indenting Department of NIT, Rourkela, and must be reached within **60 days** from the date of placement of the supply of order under the risk and arrangement of the bidder and offers with delivery beyond the above period shall be treated as unresponsive. In case the delivery time is higher, the same must be mentioned clearly in the quotation.
- 2.4 The bid should remain valid for a period of **90 days** from the date of opening. In case your offer has a different validity period that should be clearly mentioned in the quotation.
- 2.5 Conditional discount, if any, offered by the bidder shall not be considered at the time of evaluation.
- 2.6 The goods offered should strictly conform to the specification and technical details mentioned in **Annexure-I**.
- 2.7 The Institute may like to conduct pre-dispatch inspection of goods, where applicable.
- 2.8 Period of guarantee/warranty, where applicable, should be specified in the bid.
- 2.9 If the successful bidder, on receipt of the supply order, fails to execute the order within the stipulated period, in full or part, it will be open to the Director, NIT, Rourkela to recover liquidated damage from the firm at the rate of 1 percent of the value of undelivered goods per month or part thereof, subject to a maximum of 5 percent of the value of undelivered goods. Alternatively, it will also be opened to the Director, to arrange procurement of the required goods from any other source at the risk and expenses of the bidder.
- 2.10 The successful bidder may be required to execute a contract, where applicable.
- 2.11 The bidder has to furnish up to date **GST and Income Tax Clearance Certificate** for **last three Financial Years i.e. FY 2015-16, 2016-17, 2017-18** along with the bid.
- 2.12 80% of the total amount (contract value) will be paid through L/C; Remaining 20% will be paid through wire transfer after successful completion of installation and testing.
- 2.13 In case of Advance payment, the payment will be made L/C only. The proforma invoice copy need to be sent for advance payment.
- 2.14 In the event of any dispute arising out of the bid or from the resultant contract, the decision of the Director, NIT, Rourkela shall be final.
- 2.15 The bid document/resultant contract will be interpreted under Indian Laws

Specifications for 'Liquid Nitrogen Plant with Accessories (for 24×7×365 – Continuous operation)'**Description**

A fully automated and integrated LN₂ plant that can run continuously without any human interruption. Productivity should not be reduced below 90 % even after 5 years.

The detailed Technical specification is as follows:

1. Capacity and purity
 - a. Productivity: 60 liters per day or higher
 - b. Purity of LN₂: Minimum 98%
 - c. Storage (Dewar) Capacity: Minimum 200 liters with proper level indicator and proper LN₂ discharge arrangements, with a flexible stainless-steel hose pipe
 - d. Productivity rate should not be reduced below 90% of the total capacity even after 5 years after installation.
2. Controller
 - a. One centralized controller with instrumentation is required to control each part of the sub-system: Cryocooler Compressor, filters, chiller, air compressor, gas separator unit, etc.
3. Cryocooler compressor
 - a. Should be an integral part of the cryocooler
 - b. If not an integral part of the of cryocooler, then the connection between compressor and cold head must be through stainless steel flexible hose pipe.
4. Water chiller
 - a. It should be integrated with close-loop water circuit system.
 - b. Chiller must be from the Original Equipment Manufacturer (OEM), if not, then it must be from a reputed international brand. Detailed specifications, details of the manufacturer and user list used in the liquid nitrogen plant should be provided.
5. Air-compressor and filter unit
 - a. Purity of nitrogen gas: Minimum 98%.
 - b. Membrane /PSA based nitrogen filtration system is preferred.
 - c. Air compressor must be from the Original Equipment Manufacturer (OEM), if not, then it must be from a reputed international brand with detailed specifications, details of the manufacturer and user list used in the liquid nitrogen plant.
6. Schematic representation of the complete working cycle and flow diagram of each of the subsystem (chiller, controller, cryocooler, cryocooler & air compressors, filters, dewar, etc) should be provided along with the technical bid.
7. Technical bid should also include power consumption of the plant, efficiency of different components, coolant type, flow rate and conditions, chiller details, etc.
8. The whole plant including all the subsystems must follow all the standard safety norms and must be equipped with all safety alarms and accessories, as required. Proper safety instructions for the main unit and for all the accessories must be provided in the manual
9. The whole system and its accessories must work in a surrounding with a temperature up to 50°C and relative humidity up to 95%.
10. The system must operate with a noise level below 80 dBA at a distance of 1 m.
11. System/fault diagnostics must be integrated with the Visual Display Unit.
12. The quotation must specify the pre-requirements for installation (if any) and must include the requirement of onsite training (if any) for the operator.

Details of the configuration and deviation must be provided along with technical bid.

Other Terms and Conditions

1. Minimum 10 numbers of Certificates of Installation and Commissioning (from the users) of LN₂ Plant having mentioned capacity or higher in last 5 years from India only (with details of user).
2. Minimum 5 numbers of Certificate of Performance of successful running of LN₂ plant for more than 5 years with 80% or more productivity from the User within India only.
3. 5 number of Annual Maintenance Contract (AMC) certificates from users within India only.
4. Certificate from OEM or its Indian representative to have a complete after sales service set up unit in India.
5. If the bidder is not an OEM, the representative must submit a certificate from OEM for serving the same OEM in India at least for 5 years.
6. Warranty and Comprehensive Maintenance Contract (CMC):
 - (i) Comprehensive warranty for 3 years including spares and consumables. Warranty will be effective from the date of successful installation at NIT-Rourkela.
 - (ii) Price quote should also include a Comprehensive Maintenance Contract (CMC) for further 4 years after completion of the above-mentioned warranty period. CMC should cover all the spares and consumables. The payment for CMC will be done after satisfactory performance at each six-month interval during the CMC period. Response time for maintenance during warranty and CMC periods should not be more than 24 hours. Bid should include TWO preventive maintenance visits in each year and unlimited number of emergency visits. Contract will be awarded on overall basics (considering the price quote for the product and price quote for CMC together).
7. Price should include installation and delivery of the plant to CIF Kolkata basis. Price should be quoted in foreign currency for imported items and in Indian Rupee for indigenous items.
8. **Terms of Payment:** 80% of the total amount (total contract value) will be paid through L/C, Remaining 20% will be paid through wire transfer after successful completion of installation and testing.

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