



**NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA – 769 008, ODISHA**

Advertised Tender Enquiry

Department : Central Instrumentation Facility (CIF)

Tender Notice No: NITR/PW/CIF/2018/35

Date: 28/06/2018

Important Dates

To
CPP Portal
(E-Procurement)

Event	Date	Time
Pre-bid Conference	NA	NA
Last Date of submission of bid	27/07/2018	03:00 PM
Date of opening of technical bid	30/07/2018	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 technical clarification

Head, Central Instrumentation Facility (CIF)
Attn.: Prof. Mukesh Kumar Gupta
NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA – 769 008, ODISHA
Phone: 0661 – 2462294
Fax: 0661 – 2462999
E-mail: guptam@nitrkl.ac.in

Yours sincerely,

Name: Prof. Mukesh Kumar Gupta
Incharge: CIF Laboratory

Encl :

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

1. Schedule of requirements

Sl. No.	Description of Goods/Service	Quantity
1	Liquid Nitrogen Plant with Accessories	01

2. Specifications and allied Technical Details

As per Annexure - I

3. Format of Quotation (tick appropriate box)

It is a single bid; please give all technical specifications and price bid in one envelope.

OR

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 **120 days** from the closing date of the bid.

6. Some important dates:

- i. Pre-bid Conference: Date: NA Time: NA
- ii. Last date for receipt of bid: Date: 27/07/2018 Time: 03:00 PM
- iii. Opening of techno-commercial bid: Date: 30/07/2018 Time: 11:00 AM

7. Warranty of **Five** years must be provided.

8 GST: GST should be charge according to applicable rates.

9. Bid Security and Tender Cost: Bid Security in shape of **Bank Guarantee/DD** (Demand Draft) for **INR 1, 30,000/- (Rupees One Lakh thirty 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 Bank Guarantee/DD for the Bid-Security should remain valid for a period of **45 days** beyond the bid validity period from the date of opening of bids. Bid security 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 (Earnest Money deposit) 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: HOD(CIF) on or before 30/07/2018 at 11:00 AM.**

- 10. Performance Security: Rs. 3,25,000/- (Rupees Three lakh twenty five thousand 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. And 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 return after the receipt of performance security in case of award of contract to successful bidder. In case of non-fulfilment of all contract terms and condition during the contract period performance security may be forfeited.
- 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. Mukesh Kumar Gupta Central Instrumentation Facility (CIF) National Institute of Technology, Rourkela – 769 008 Phone: 0661 – 2462294 Fax: 0661 – 2462999 E-mail: guptam@nitrkl.ac.in
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NATIONAL INSTITUTE OF TECHNOLOGY 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, Odisha, from the intending bidders for supply of the goods/stores/ equipments 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. In case the above date is declared a holiday for NIT, Rourkela, and the bids will be received up to the appointed time on the next working day.
- 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.
- 1.11 If any bidder does not fulfill technical specification, his/her eligibility will be cancelled even if his/her price got L1 status.

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 exempt from paying Excise Duty vide Government Notification No. 10/97 dated 01.03.1997 [Registration No.: TU/V/RG-CD (227)/2011, dated 10.10.2011. The Institute is not authorized to issue C or D forms. GST may be charged at applicable rates.

- 2.3 The goods are required to be delivered at the indenting Department of NIT, Rourkela, and must be reached within **120 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 **120 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 Indian bidder has to furnish up to date GST and Income Tax Clearance Certificate along with the bid.

- 2.12 Payment (100 percent) will be made by Account Payee Cheque/Bank Draft, within 30 days from the date of receipt of the goods in good condition or receipt of the bill, commissioning of the equipment, where applicable, whichever is later/latest.
- 2.13 In case of Advance payment, the payment will be made on either in Foreign Demand Draft or Wire Transfer 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.

(Detailed Specification of Liquid Nitrogen Plant with Accessories)

Fully automatic, single-switch operable, complete system of producing liquid nitrogen, inclusive of all the required accessories, equipments and safety devices. The detailed specifications are as follows:

The system should be capable of producing at least 60 L of liquid nitrogen per day with a purity level of at least 99% and should have an in-built storage capacity of at least 100 L with digital pressure and level indicators having accuracy of 1L (1%) or better. The production rate should not reduce below 50 L per day for at least 5 years. The Water-Chiller, if required, should be System Integrated System Loop Water-Chiller. No external chilled water supply should be required. The whole system, including the storage vessels, should also be fitted with all standard safety and required accessories, audio/visual alarms, and should be in conformance to International Standards such as CE or ASME etc. In addition, personal protection equipment such as cryogenic gloves, goggles, flexible cryogen transfer siphon with handle etc. should be provided for at least two personnel for handling the liquid nitrogen.

The system should be capable of running fully automatic, unattended full-proof and fail-safe operation through Programmable Logic Controller (PLC), which should have display unit with Human Machine Interface (HMI) having graphic touch screen to display liquid nitrogen level, operational parameters and remote diagnostics. The system should work at electrical conditions (3 Phase, 50 Hz \pm 2%, 400-440 V) of India, should achieve full production rate within 30 min of start and should have features to automatic restart after resumption of a power failure of any duration. Similarly, the system should have feature to switch-off as soon as the liquid nitrogen level in storage tank reaches 100% and should restart when the liquid nitrogen level reaches a preset lower level. The whole system should work at ambient temperature of 5°C - 45°C and RH of 40% - 95% or wider.

The system should be noise-less (Noise level: less than 80 dBA at 1 m distance) and be capable of running continuously for at least 5000 h without servicing/ maintenance and should not require major maintenance for at least 35000 h. System diagnostics should be integrated with the visual display unit.

The Original Equipment Manufacturer (OEM) should be an ISO certified company. Plants having cooling cycles involving toxic blends of gases or mixture of refrigerants will not be accepted. The whole plant, including all accessories (i.e. air compressor, water chiller etc., if required) should be tested at Factory of the OEM of liquid nitrogen plant. Local supplies, which are not tested with the offered liquid nitrogen plant at the OEM Factory itself, will not be accepted. Offer should be accompanied by test certificates from the appropriate authority for the quoted items. Proper safety instructions for each accessory should be available in the manual.

The quotation must specify the pre-requirements (such as electrical power requirements, room requirements etc.) for installation and the offer must include onsite installation and commissioning of the plant and all its components along with onsite training of the operators. Systems requiring special foundations such as RCC / Vibration Resistance Flooring / AC Rooms / Dust-Free Special Clean Rooms etc. will not be accepted. The offered model should allow portability of the system.

The quotation should also:

1. Confirm that the plant operating procedure will allow transfer of liquid nitrogen from the storage vessel into vacuum insulated transfer tube or to the external tanker (having pressure lower than the pressure of the Storage Tank in-built within the supplied system) without adversely affecting the liquefaction process in any mode of operation.
2. Give performance data on guaranteed liquefying rates in quoted operating pressure and corresponding liquid nitrogen purity.
3. Remove water traces, if any by integral purifier or other technology.
4. Confirm that no defrosting/purging would be necessary.
5. Furnish preventive maintenance schedules for the plant and its components.

6. Contain a list of all the spare parts required for smooth operation of the plant.

The quotation should include at least two years of on-site comprehensive Warranty / Guarantee, commencing from the date of complete and satisfactory installation of the equipment, against the defect of any manufacturing, workmanship and poor quality of the components. The quotation should also include five (5) years of comprehensive maintenance contract including the major maintenance kit or spares required for five (5) years of plant operation along with the detailed part list and numbers. Two sets of complete user and service manual in English language in both Hard copy and Soft copy should also be provided.

Price should be quoted as single combined price of the plant, site preparation and installation, warranty and spares (CMC) etc., all inclusive. The price may be quoted as FOB Rourkela /CIF Kolkata price. NIT Rourkela is exempted to pay customs duty.

Bidder or its Indian Representative must have a Complete After-Sales Service Set-up in the Eastern Region of India (preferably in Odisha), for fastest response. Installation / Commissioning should be accomplished with priority, as soon as we receive the Consignment at site and our Site will be ready as per your Pre-Installation Guidelines (to be provided before shipment of plant). Warranty and After-Sales Service should be provided within Maximum 24 to 48 hours of our call.

Bidder or their Manufacturer must have Supplied, Installed and Commissioned at least Five (5) Liquid Nitrogen Plants world-wide in last five (5) years. Please provide all relevant Customer Details. Bidder should also certify that all Spares for the offered Plant will be available with their Indian Representative and can be procured as and when required, in INR. Bidder or its Indian Representative must have suitable Experience in Installation/Commissioning and After-Sales Service of Liquid Nitrogen Plants in India. Bidder or their Indian Representative mandatorily needs to provide at least five (5) Purchase Order Copies (may be un-priced) of AMC / Repair of Liquid Nitrogen Plants in last five (5) years in India. Bidder or their Indian Representative should have ISO Certification towards Supply, Installation, Commissioning and Service of LN2 Plant in India.

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