



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

ADVERTISED TENDER ENQUIRY

Department: Electrical Engineering

Tender Notice No: NITR/PW-SR/EE/2020/194

Date: 09/09/2020

To

Bidding through
e-Procurement module of
CPP Portal.

<https://eprocure.gov.in/eprocure/app>

Important Dates

| Event | Date | Time |
|--|-------------------|-----------------|
| Pre-bid Conference | NA | NA |
| Last Date of submission of bid | 29/09/2020 | 11:00 AM |
| Date of opening of techno-commercial Bid | 30/09/2020 | 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 query, you may contact

Attention:-

Prof. Susovon Samanta

Dept. of Electrical Engineering
NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA – 769 008, ODISHA
Phone : (0661) – 246-2420
E-mail: samantas@nitrkl.ac.in

Yours sincerely,

Sd/-

Prof. Susovon Samanta
Dept. of Electrical Engineering

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 |
|---------|--|----------|
| 01. | Ultracapacitor Module 160V, 5.8F (as per detail Annexure-I) | 04 Units |

2. Specifications and allied Technical Details

| |
|----------------------------|
| As per Annexure – I |
|----------------------------|

3. Format of Quotation

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 opening of techno-commercial bid.

6. Some important dates:

- | | | | |
|------|---|-------------------------|-----------------------|
| i. | Pre-bid Conference | Date: NA | Time: NA |
| ii. | Last date for submission of bid | Date: 29/09/2020 | Time: 11:00 AM |
| iii. | Opening of Techno-commercial bid | Date: 30/09/2020 | Time: 11:00 AM |

7. **Warranty:** 2 years comprehensive warranty from OEM.

8. **Technical Evaluation Criteria:** As per the detailed equipment technical specifications given in Annexure –I. The bidders will be asked to give a technical presentation before opening of the financial bid (to provide clarification and to ascertain the technical specifications of the bid).

9. Other Qualification criteria:

Eligibility of Bidders:

- i. Bidders must submit a declaration on their letter head that they are not black listed in any Govt. body, undertaking, and PSU or Autonomous bodies. If found the declaration is false their offer will be out rightly rejected and their EMD amount will be forfeited.
- ii. The Vendor shall provide the following information with the bid to provide background information on vendor to Tender Committee.
 - a. **The list of clients** (contact details of a person phone/ mob. no. with e-mail ids should be attached) where the bidder/OEM had supplied the similar type of materials (as mentioned in schedule of requirements) with successful installation in last three years.
 - b. **Delivery period** from the date of placement of the Purchase Order.
 - c. Possible quicker **availability** of the vendor when problem occurs.
 - d. **Validity period** of cost of equipment.
 - e. **Necessary documents** as mentioned in **Annexure -I**
 - f. Any other points may have deemed fit by the committee at time of technical evaluation of bid documents.
 - g. Details of Hardware included in offer.
 - h. Details of Technical Specification and other specifications so as to enable technical assessment of the proposal. Unpriced bid document exactly same as the price bid with full break up without the costs mentioned.

- 10. Financial Bid Evaluation Criteria:** The comparison will be made for the award of contract on the overall price basis.
- 11.** (a) All prices to be quoted on FOR basis (NIT Rourkela) in INR.
(b) GST: GST should be charged at applicable rates against DSIR certificate.
- 12. Bid Security (EMD) and Tender Cost:** Bid Security in shape of DD (Demand Draft) for **INR 10,000/- (Rupees Ten Thousand Only)** and Tender Cost (Non- refundable) in the form of DD for **INR 1000/- (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 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**; on or before **30/09/2020 at 11:00 AM**.
- 13. Performance Security: 5% of contract value** 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. Performance Security should be submitted within 15 days from the date of receipt of Order. 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.
- 14.** Please send your quotations through <https://eprocure.gov.in/eprocure/app>
- 15.** For technical details, you may contact

Prof. Susovon Samanta

Department of Electrical Engineering

National Institute of Technology, Rourkela – 769 008.

Phone : (0661) – 246-2420

E-mail: samantas@nitrkl.ac.in

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



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 – 769008, 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.
- 1.5 The Bid should be uploaded in <https://eprocure.gov.in/eprocure/app> . Please follow the guideline 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 into consideration.
- 1.8 Each bidder shall submit only one bid. A bidder, who submits more than one bid, shall be disqualified and considered nonresponsive.
- 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., techno-commercial 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 are acceptable.
- 1.11 Bidders registered with any of the following agencies/ bodies as per Public procurement policy for Micro & Small Enterprises (MSE) order 2012 are exempted categories from payment of EMD provided that the registration Certificate issued by any one of these below mentioned agencies must be valid as on close date of tender. Micro small or medium enterprises who have applied for registration or renewal of registration with any of these agencies/bodies but have not obtained the valid Certificate as on close date of tender are not eligible for exemption.
 - i) Khadi and Village Industries Commission (KVIC)
 - ii) National Small Industries Corporation (NSIC)
 - iii) Any other body specified by Ministry of MSME/GOI

2. Conditions of the bid:

- 2.1** The rates quoted should preferably be net, inclusive of all taxes and duties, packing, forwarding, freight, Insurance and all other incidental charges. 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 etc., when quotes separately are reimbursable at actuals. If external agencies are employed, their receipts must be

enclosed with the invoice. 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 – Integrated tax (Rate) dt. 14/11/2017 & Notification No. - 45/2017- Central tax (Rate) dt. 14.11.2017, Notification No. - 45/2017- Union Territory Tax (Rate) dt. 14/11/2017 [Vide DSIR, Ministry of Science and Technology, Government of India, Registration No.: TU/V/RG- CDE (227)/2016, dated: 13.11.2018].

- 2.2 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.
- 2.3 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.
- 2.4 Conditional discount, if any, offered by the bidder shall not be considered at the time of evaluation.
- 2.5 The goods offered should strictly conform to the specification and technical details mentioned in Annexure-I.
- 2.6 The Institute may like to conduct pre-dispatch inspection of goods, where applicable.
- 2.7 Period of guarantee/warranty, where applicable, should be specified in the bid.
- 2.8 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.
- 2.9 The successful bidder may be required to execute a contract, where applicable.
- 2.10 The bidder has to furnish up to date Income Tax Clearance Certificate along with the bid.
- 2.11 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.
- 2.12 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.
- 2.13 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.
- 2.14 The bid document/resultant contract will be interpreted under Indian Laws.

**DETAILED TECHNICAL SPECIFICATION
Purchase of “Ultra capacitor Module 160V, 5.8F”**

Sealed tender bids are invited from authorized vendors of “Ultra capacitor Module 160V, 5.8F” with all required accessories.

TECHNICAL SPECIFICATION: Ultra capacitor Module 160V, 5.8F

FEATURES :

1. Up to 10 year DC life
2. 160V DC working voltage
3. Resistive cell balancing
4. Compact and light weight package
5. Screw terminals

Product Specifications

Electrical:

| | |
|---|---------|
| Rated Capacitance ₁ | 5.8 F |
| Minimum Capacitance, initial ₁ | 5.8 F |
| Maximum Capacitance, initial ₁ | 7 F |
| Maximum ESR _{DC} , initial ₁ | 240 mΩ |
| Test Current for Capacitance and ESR _{DC1} | 35 A |
| Rated Voltage | 160 V |
| Absolute Maximum Voltage ₂ | 170 V |
| Absolute Maximum Current | 170 A |
| Leakage Current at 25°C, maximum ₃ | 25 mA |
| Maximum Series Voltage | 750 V |
| Capacitance of Individual Cells ₉ | 350 F |
| Maximum Stored Energy, Individual Cell ₉ | 0.35 Wh |
| Number of Cells | 60 |

Temperature:

| | |
|---|-------|
| Operating Temperature (Cell Case Temperature) | |
| Minimum | -40°C |
| Maximum | 65°C |
| Storage Temperature (Stored Uncharged) | |
| Minimum | -40°C |
| Maximum | 70°C |

Physical

| | |
|-------------------------------|--------------------|
| Mass, typical | 5.2 kg |
| Power Terminals | M5 Thread |
| Recommended Torque - Terminal | 4 Nm |
| Vibration Specification | IEC60068-2-6 |
| Shock Specification | IEC60068-2-27, -29 |
| Environmental Protection | IP54 |
| Cooling | Natural Convection |

MONITORING / CELL VOLTAGE MANAGEMENT

| | |
|-----------------------------|--------------------|
| Internal Temperature Sensor | N/A |
| Temperature Interface | N/A |
| Cell Voltage Monitoring | Voltage Center Tap |
| Connector | M4 |
| Cell Voltage Management | Passive |

POWER AND ENERGY

| | |
|---------------------------------|------------|
| Usable Specific Power, | 2,500 W/kg |
| Impedance Match Specific Power, | 5,100 W/kg |
| Specific Energy | 4 Wh/kg |
| Stored Energy | 21 Wh |

SAFETY

| | |
|--|-----------|
| Short Circuit Current, typical (Current possible with short circuit from rated voltage. Do not use as an operating current.) | 670 A |
| Certifications | RoHS |
| High-Pot Capability ¹⁰ | 5,600 VDC |

THERMAL CHARACTERISTICS

| | |
|--|---------------------|
| Thermal Resistance (R_{ca} , All Cell Cases to Ambient), typical ₈ | 1.1°C/W |
| Thermal Capacitance (C_{th}), typical | 4,800 J/°C |
| Maximum Continuous Current ($\Delta T = 15\text{ °C}$) ₈ | 7 A _{RMS} |
| Maximum Continuous Current ($\Delta T = 40\text{ °C}$) ₈ | 12 A _{RMS} |

LIFE

| | |
|--|-------------|
| DC Life at High Temperature (held continuously at Rated Voltage and Maximum Operating Temperature) | 1,500 hours |
| Capacitance Change (% decrease from minimum initial value) | 20% |
| ESR Change (% increase from maximum initial value) | 100% |
| Projected DC Life at 25°C ₁ (held continuously at Rated Voltage) | 10 years |
| Capacitance Change (% decrease from minimum initial value) | 20% |
| ESR Change (% increase from maximum initial value) | 100% |
| Shelf Life (Stored uncharged at 25°C) | 4 years |

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