



**INDIAN INSTITUTE OF TECHNOLOGY, KANPUR**  
**GT ROAD, KALYANPUR, KANPUR – 208016**  
**UTTAR PRADESH, INDIA**

**TENDER REFERENCE NO. : IITK/PHY/JN/2020-21/01**

**BID SUBMISSION END DATE- 17.06.2020**

**TENDER DOCUMENTS**

**FOR**

**Purchase of 20 KVA Uninterrupted Power Supply**

## **BID DOCUMENT**

Online bids (Technical & Financial) from eligible bidders which are valid for a period of 120 days from the date of Technical Bid opening (i.e.18.06.2020) are invited for and on behalf of the Assistant Registrar, IIT Kanpur for “**Purchase of 20 KVA Uninterrupted Power Supply**”.

Name of Work	<b>20 KVA Uninterrupted Power Supply</b>
Estimated Cost	Rs.4,20,000/-
<b>Date of Publishing</b>	27.05.2020 (17:00 hrs)
Clarification Start Date and Time	27.05.2020 (17:00 hrs)
Clarification End Date and Time	17.06.2020 (16:00 hrs)
Queries (if any)	No queries will be entertained after clarification end date and time
<b>Bid Submission Start Date</b>	27.05.2020 (17:00) hrs
Last Date and time of uploading of Bids	17.06.2020 (16.00 hrs)
Last Date and time of <b>submitting</b> , EMD and other documents at IIT Kanpur (if any)	NA
Date and time of opening of Technical Bids	18.06.2020 (16:00 hrs)
Date and time of opening of Financial Bids	Will be separately notified for Technically shortlisted/qualified bidders

Interested parties may view and download the tender document containing the detailed terms & conditions from the website <http://eprocure.gov.in/eprocure/app>

**(The bids have to be submitted online in electronic form on [www.eprocure.gov.in](http://www.eprocure.gov.in) only. No physical bids will be accepted.)**

## **INSTRUCTION FOR ONLINE BID SUBMISSION**

The bidders are required to submit soft copies of their bids electronically on the Central Public Procurement (CPP) Portal ie <http://eprocure.gov.in/eprocure/app> , using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

### **REGISTRATION**

- (i) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL:<https://eprocure.gov.in/eprocure/app>) by clicking on the link “Online Bidder Enrolment” option available on the home page. **Enrolment on the CPP Portal is free of charge.**
- (ii) During enrolment/ registration, the bidders should provide the correct/ true information including valid email-id & mobile no. All the correspondence shall be made directly with the contractors/ bidders through email-id provided.
- (iii) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- (iv) For e-tendering possession of valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) is mandatory which can be obtained from SIFY /nCode/eMudra or any Certifying Authority recognized by CCA India on eToken/ SmartCard.
- (v) Upon enrolment on CPP Portal for e-tendering, the bidders shall register their valid Digital Signature Certificate with their profile.
- (vi) Only one valid DSC should be registered by a bidder. Bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse and should ensure safety of the same.
- (vii) Bidders can then log into the site through the secured login by entering their userID/ password and the password of the DSC/ eToken.

### **SEARCHING FOR TENDER DOCUMENTS**

- 1) There are various search options built in the CPP Portal to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords, etc., to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

### **PREPARATION OF BIDS:**

- (i) For preparation of bid Bidders shall search the tender from published tender list available on site and download the complete tender document and should take into account corrigendum if any published before submitting their bids.  
After selecting the tender document same shall be moved to the ‘My favourite’ folder of bidders account from where bidder can view all the details of the tender document.

- (ii) Bidder shall go through the tender document carefully to understand the documents required to be submitted as part of the bid. Bidders shall note the number of covers in which the bid documents have to be submitted, the number of documents – including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- (iii) Any pre-bid clarifications if required, then same may be obtained online through the tender site, or through the contact details given in the tender document.
- (iv) Bidders should get ready in advance the bid documents in the required format (PDF/xls/rar/dwf/jpg formats) to be submitted as indicated in the tender document/schedule. **Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.**
- (v) Bidders can update well in advance, the documents such as experience certificates, AMC report, PAN, EPF & other details etc., under “My Space/ Other Important Document” option, which can be submitted as per tender requirements. This will facilitate the bid submission process faster by reducing upload time of bids.

#### **SUBMISSION OF BIDS:**

- (i) Bidder should log into the site well in advance for bid submission so that he/ she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay.
- (ii) Bidder should prepare the EMD as per the instructions specified in the NIT/ tender document. The details of the DD/BC/BG/ others physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- (iii) While submitting the bids online, the bidder shall read the terms & conditions (of CPP portal) and accepts the same in order to proceed further to submit their bid.
- (iv) Bidders shall select the payment option as offline to pay the EMD and enter details of the DD/BC/BG/others.
- (v) Bidder shall digitally sign and upload the required bid documents one by one as indicated in the tender document.
- (vi) Bidders shall note that the very act of using DSC for downloading the tender document and uploading their offers is deemed to be a confirmation that they have read all sections and pages of the tender document without any exception and have understood the complete tender document and are clear about the requirements of the tender document.
- (vii) Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document. For the file size of less than 1 MB, the transaction uploading time will be very fast.
- (viii) **If price quotes are required in XLS format, utmost care shall be taken for uploading Schedule of quantities & Prices and any change/ modification of the price schedule shall render it unfit for bidding.**

**Bidders shall download the Schedule of Quantities & Prices i.e. Schedule-A, in XLS format and save it without changing the name of the file. Bidder shall quote their rate in figures in the appropriate cells, thereafter save and upload the file in financial bid cover (Price bid) only. If the template of Schedule of Quantities & Prices file is found to be modified/corrupted in the eventuality by the bidder, the bid will be rejected and further dealt as per provision of clause**

**no 23.0 of ITB including forfeiture of EMD.**

**The bidders are cautioned that uploading of financial bid elsewhere i.e. other than in cover 2 will result in rejection of the tender.**

- (ix)** Bidders shall submit their bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). **The TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders at the eleventh hour.**
- (x)** After the bid submission (i.e. after Clicking “Freeze Bid Submission” in the portal), the bidders shall **take print out of system generated acknowledgement** number and keep it as a record of evidence for online submission of bid, which will also act as an entry pass to participate in the bid opening.
- (xi)** Bidders should follow the server time being displayed on bidder’s dashboard at the top of the tender site, which shall be considered valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system.
- (xii)** All the documents being submitted by the bidders would be encrypted using PKI (Public Key Infrastructure) encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology.

**ASSISTANCE TO BIDDERS:**

- (i) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contract person indicated in the tender. The contact number for the helpdesk is 0512-259-6557 between 10:30 hrs to 17:00 hrs.
- (ii) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24X7 CPP Portal Helpdesk. The 24 x 7 Help Desk Number 0120-4200462, 0120-4001002 and 0120-4001005. The helpdesk email id is [support-eproc@nic.in](mailto:support-eproc@nic.in)

## INSTRUCTION FOR e-PROCUREMENT

### 1. PREPARATION AND SUBMISSION OF BIDS :

- a. The detailed tender documents may be downloaded from <http://eprocure.gov.in/eprocure/app> till the last date of submission of tender. The Tender may be submitted online through CPP Portal <http://eprocure.gov.in/eprocure/app>
- b. The bidder should submit the bid online in two parts viz. Technical Bid and Financial Bid. Technical Bid should be upload online in cover 1 and Financial Bid in “.Xls” should be upload online in cover-2

### 2. SUBMISSION OF THE BID : All interested eligible bidders are requested to submit their bids online on CPP Portal: <http://eprocure.gov.in/eprocure/app> as per the criteria given in this document:

- a. Technical Bid should be upload online in cover-1.
- b. Financial Bid should be upload online in cover-2

Both Technical and Financial Bid covers should be placed online on the CPP Portal (<http://eprocure.gov.in/eprocure/app>).

### 3. TECHNICAL BID: Signed and Scanned copies of the Technical bid documents as under must be submitted online on CPP Portal: <http://eprocure.gov.in/eprocure/app> .

- a) **List of Documents to be scanned and uploaded (Under Cover-1) within the period of bid submission:-**
  - i. Scanned copy of Bank details. (Bank details of principal supplier in case of Import shipments)
  - ii. Scanned copy of work experience.
  - iii. Scanned copy of certificate of GST. (GSTIN of Indian Agent in case of Import Shipments)
  - iv. Scan copy of tender acceptance letter.
  - v. Scanned copy of specifications or brochures (if any).
  - vi. Scanned copy of other document mentioned in tender document (if any)
- b) **For Import Shipments – Shipping Terms Ex-Works/FOB are preferred.**

**NOTE - no indication of the rates/amounts be made in any of the documents submitted with the TC-BID.**

### 4. **Financial Bid**

- a. The currency of all quoted rates shall be Indian Rupees.
- b. In preparing the financial bids, bidders are expected to take into account the requirements and conditions laid down in this Tender document. The financial bids should be uploaded online as per the specified “.Xls” format i.e. Price Bid Excel sheet attached as ‘.Xls’ with the tender and based on the scope of work, service conditions and other terms of the Tender document. It should include all costs associated with the Terms of Reference/Scope of Work of the assignment.
- c. The Financial Proposal should be inclusive of all applicable taxes, duties, fees, levies, and other

charges imposed under the applicable laws. The rates quoted in the Tender are inclusive of all applicable taxes, duties etc. **except service tax**. The service tax component shall be re-immersible by the department after receipt of paid challans etc. if applicable.

**5. Last Date for Submission of Tender:**

- a. Online bids complete in all respects, must be submitted on or before the last date and time specified in the schedule of events.
- b. The IIT, Kanpur may, at its own discretion, alter/extend the last date for submission of tenders.

**6. Bid Validity**

- a. All the Bids must be valid for a period of 120 days from the last date of submission of the tender for execution of Contract. However, the quoted rates should be valid for the initial/ extended period of the Contract from the effective date of the Contract. No request will be considered for price revision during the original Contract period.
- b. A bid valid for a shorter period shall be declared as non-responsive.
- c. In exceptional circumstances, prior to expiry of the original time limit, the IIT may request the bidders to extend the period of validity for a specified additional period beyond the original validity of 120 days. The request and the bidders' responses shall be made in writing. The bidders, not agreeing for such extensions will be allowed to withdraw their bids without forfeiture of their Bid Security.

**7. Modification / Substitution/ Withdrawal of bids:**

- a. No Bid shall be modified, substituted or withdrawn by the Bidder after the Bid's due Date.
- b. Any alteration/ modification in the Bid or additional information supplied subsequent to the Bid's due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.

**8. Rejection of the Bid:** The bid submitted shall become invalid and tender fee shall not be refunded if:-

- a. The bidder is found ineligible.
- b. The bidder does not upload all the documents as stipulated in the bid document.

## **Tender document**

Department of Physics  
Indian Institute of Technology Kanpur  
Kanpur (UP) 208016 India

Enquiry date: May 27<sup>th</sup>, 2020

Enquiry No: IITK/PHY/JN/2020-21/01

Online quotations are invited for 20 KVA Uninterrupted Power Supply. The detailed specifications are described below.

### **Dr. Jayita Nayak**

Department of Physics  
Indian Institute of Technology Kanpur  
Kanpur 208 016, India  
Phone- 0512-259-6557

### **Terms and Conditions:**

1. All equipment must be compatible with Indian electrical standards and codes. Engineering documentation on the physical sizes and weights of all major and minor components must be submitted.
2. Warranty & Support: One year comprehensive on-site for both Hardware from OEM directly.
3. The vendor must have done three installations in national institutes in India and provide the name of the institutes and project investigators.
4. They should have minimum 10 years of experience in this field.
5. Delivery period will be 8-10 weeks after receiving Formal PO.
6. IIT Kanpur is fully exempted from payment of GST on Imported Goods against our DSIR certificate.
7. IIT Kanpur is partially exempted from payment of Customs Duty (We will provide Custom Duty Exemption Certificate, CD applicable is 5.5%).
8. TENDER Specific Manufacturer Authorization Form from OEM Required.
9. The Institute reserves the right of accepting or rejecting any quotations without assigning any reason thereof.
10. All prices should be *F.O.R.*
11. All the specifications to be demonstrated at the time of installation to verify the system performance. System will not be accepted without the demonstration of its features and



capability. Any necessary standard samples for that purpose should be brought by the service engineers.

12. The vendor must provide compliance statement as per their own specifications of the product duly supported by manufacture's literature.
13. Minimum 1year warranty from the date of installation.
14. Technical evaluation by the institute may include demonstration to verify functionalities and capabilities of the system quoted.

## **Technical specifications of 20 KVA Uninterrupted Power Supply**

**Following features/ specifications are required:**

### **A-Technical specification**

1. **Capacity (in KVA / KW) :** 20 KVA/ 16 KW 3-Phase Input / 1-Phase Output
2. **Backup Required:** 30 mins
3. **Technology and Capability:** a) True Online configuration with double conversion UPS  
b) DSP based control.  
c) UPS capacity by operating UPS Parallel Redundant Configuration (PRS).  
d) Capability of Independent battery bank operation of the UPS when operated in PRS.  
e) UPS should be designed at Rated PF of 0.8 i.e. 20kVA / 16 kW UPS rating.  
f) Dual Input design.
4. **Input facility -Phases / Wires:** 3-Phase / 4-Wire & Gnd (3Phase & Neutral + Ground)
5. **Input Voltage Range:** 220/380V, 230/400V, 240/415V  
Range (Full Load) 176~276 / 305~477V  
Range (Derating to 50% Load) 120~175 / 208~304V"
6. **Nominal Input Frequency:** 50/ 60 Hz (Auto selectable)
7. **Input Frequency Range:** 45 to 65 Hz
8. **Input Power Factor:** > 0.95 (full load)
9. **Generator Compatibility:** Compatibility to genset supply required
10. **Input Protection (Thru In-built 1P MCB):** Should be provided at the input of the UPS suitable for the full rated capacity of the UPS
11. **Nominal Output voltage:** 220/230/240 VAC
12. **Output Voltage Regulation:**  $\pm 1 \%$
13. **Nominal Output Frequency:** 50/60 Hz
14. **Output Frequency Regulation:**  $\pm 0.1\text{Hz}$
15. **Output Frequency Slew Rate:**  $< 1 \text{ Hz / s}$
16. **Output Wave Form** Pure sine wave
17. **Output Voltage Distortion (THDu):**  $< 2\%$  (For Linear Load)
18. **Crest Factor:** 3:1 On Full Load (Minimum)
19. **Output Short circuit Protection:** Electronic Protection
20. **Transient Response: Dynamic Regulation for 10% to 90% step linear load:**  $\pm 7\%$

21. **Transient Recovery to steady state condition after 10% to 90% step linear load:** < 1 cycle
22. **Transfer Time (Mode of operation):** Zero ms from Mains mode to Battery Mode  
Zero ms from Battery Mode to Mains mode
23. **Transfer Time (Inverter to Bypass / Bypass to Inverter):** <1ms (Synchronized Mode)
24. **Automatic & Bi-directional static by-pass (In-built):** Bypass To Inverter  $\pm 10\%$  (Rated V)  
Inverter To Bypass  $\pm 7\%$  (Rated Voltage)
24. **Maintenance Bypass:**
  - a) In built manual bypass instead of optional.
  - b) Maintenance bypass cover removal sensing.
  - c) The maintenance bypass should provide for Hot-swap of the faulty UPS PWB for repairs / service.
25. **Overall Efficiency (AC to AC) - Online (Double Conversion):** Upto 92%(on 100% load)
26. **Overall Efficiency (AC to AC) - ECO Mode (Bypass feeding the load under normal conditions):** Upto 96%(on 100% load)
27. **Inverter Overload capacity:**  $\leq 105\%$  continuous,  $106\% \sim 110\%$  600sec,  $111\% \sim 125\%$  300sec,  $126\% \sim 150\%$  30 sec,  $> 150\%$  Immediate
28. **Measurements (On LCD):** Input: Voltage / Frequency, Bypass: Voltage / Frequency, Output: Voltage / frequency, Battery: Remaining time / Battery Level Indicator, Load: Percentage / Load Level Indicator, Battery Voltage Capacity/Status/Test Result, System Date/Time Setting, Current Time, PFC Fuse Open, Battery Temperature Too High, Battery Over Charge, Battery Out of Date, INV Short Circuit, Output Breaker Off
29. **Fault Indication (On LCD):** Main Input Sequence Fault, Power Module General Fault, Battery Ground Fault, Bypass Static Switch Fault, System General Fault, Parallel Fault, Provide Bypass O/P Even If UPS Fault,
30. **Indications (LED):** Normal-Green/Battery-Orange/Bypass-Green/Fault-Red
31. **Audible Alarms:** Battery Low beep / DC Fault beep/ UPS Overload beep/ o/p short ckt fault beep/ Shutdown beep
32. **Battery Bank Voltage:** 240 V DC or higher
33. **Battery Bank VAh (Vendor to include battery sizing calculations with tender):** Min 18000 VAh
34. **Batteries Type:** Sealed Maintenance Free (SMF) - 12V Cells
35. **Battery Makes:** Quanta/ Exide
36. **Number of Battery Bank:** Single Battery Bank on each UPS
37. **Minimum Charger Rating (Including internal / external):** The charger should be able to deliver charging current equivalent to 10% of Battery Ah rating offered. (In case of external chargers, suitable monitoring of the chargers should be provided in the UPS. Also all external chargers taking AC input must have PFC - Power factor correction)
38. **Charger type / Charging Method & Charging Voltages:** Constant Voltage Constant Current Solid state SMPS charger
39. **Float Charge:**  $270V \pm (2V)$
40. **Boost Charge:**  $280V \pm (2\%V)$
41. **Battery recharge time (After complete discharge) to 90% capacity:** 6-8 hours
42. **Battery Housing (Vendor to provide the GA drawings of the offered Battery Rack):**  
Should be compact and space saving MS steel open racks complete with interconnectors
43. **Battery End Cell Voltage:** 1.75 V/cell
44. **Operating Temperature:** 0 to 40 deg C
45. **Storage Temperature:** -20 to 40 deg C
46. **Operating Humidity:** 0%  $\sim$  95%RH (No Condensing)

- 47. Operating Altitude:** 0-3000m (0 To 10000ft)
- 48. Type of Cooling:** Forced Air
- 49. Noise Level:** < 60 dbA at 1 meter distance
- 50. Form Factor:** Rack & Tower mountable
- 51. Air Filters:** UPS should have internal anticorrosion air filters for dust filtration
- 52. Reliability:** MTBF greater than 100000 hours
- 53. Packaging Material / Vibration Withstand & Drop Test:** "Recyclable (No CFC) &  
1. Vibration testing as per ISTA -1G Non-operational with Packing
- 54. Standard Package of UPS to include the following minimum accessories:** "1. UPS  
2. CD - Monitoring Software  
3. RS232 Cable  
4. Tower Stand - For use as Tower  
5. Brackets for mounting in 19" IT Server / Networking Rack  
6. UPS to Battery bank connecting Cable  
7. User Manual"
- 55. Parallel Configuration:** UPS should have capability for parallel 4 units.
- 56. Grounding:** UPS should have grounding arrangement
- 57. Manufacturer:** QMS: As per ISO 9001: 2008  
EMS: As per ISO 14001: 2004  
OSHAS: As per ISO 18001: 2007"
- 58. Product Safety Certifications (Mandatory):** "ESD:IEC61000-4-2: level4  
RS : IEC61000-4-3: level3  
EN 61000-3-2" EFT: IEC61000-4-4:level4  
SURGE: IEC61000-4-5:level4  
CS: IEC61000-4-6: level3  
IEC 61000-2-2  
EN 62040-2
- 59. ROHS compliance:** UPS should be ROHS compliance

## **B- Services**

**Annual Maintenance Service:** Include 3 Years of AMC

**TENDER ACCEPTANCE LETTER**  
**(To be given on Company Letter Head)**

Date: \_\_\_\_\_

To,

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: \_\_\_\_\_

Name of Tender / Work: - \_\_\_\_\_

Dear Sir,

1. I / We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely:

\_\_\_\_\_ as per your advertisement, given in the above mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. \_\_\_\_\_ to \_\_\_\_\_ (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.

4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.

5. I / We do hereby declare that our Firm has not been blacklisted/ debarred/ terminated/ banned by any Govt. Department/Public sector undertaking.

6. I / We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

**Yours Faithfully,**  
**(Signature of the Bidder, with Official Seal)**