



SINGLE PART BID SYSTEM

TENDER FOR Supply, Installation, Testing & Commissioning of 3 nos. of 120 KVA True On -Line conventional type UPS with N+1 Redundancy In Parallel Mode (Excluding Batteries) for data center application at NCBS.

Ref: NCB/CA21-270/212130

Date: 23/03/2022

GENERAL CONDITIONS

1. MANNER & METHOD FOR SUBMISSION OF BIDS

- 1.1 All tenders shall be made in ENGLISH only.
- 1.2 The details in regard to technical specification and other terms and conditions should be cogent and clear to the extent possible.
- 1.3 FOLLOWING ANNEXURES must be filled up properly
 - (a) Technical Specifications - Annexure A
 - (b) Schedule of Experience - Annexure B
 - (c) Schedule of deviations in specifications/ conditions - Annexure C
 - (d) Bid Security declaration - Annexure D
 - (e) Local Content declaration - Annexure E
 - (f) Declaration from land border sharing countries with India - Annexure F
 - (g) Debarment of bidders' declaration - Annexure G
- 1.4 Each page of the tender on printed letterheads or forms and bear the signature, date, name and designation of the person signing the offer. If they are not on letterheads, a rubber stamp indicating full name, address and phone No., Telex No., Fax No. etc. of the firm shall be affixed at the end of each page.
- 1.5 Bids containing erasures or alterations are liable to be rejected unless countersigned by the authorized signatory.
- 1.6 All rates and total amount should be written both in figures and in words and if there is any discrepancy between the two, the lowest amount only will be considered.
- 1.7 If the item offered is to be imported, arrangements for import will be made by the Institute. Import duty and customs clearance will be under purchaser's scope.
- 1.8 We reserve the right to place order for part/reduced quantity than what is specified in the tender and also reserve the right to split the order to more than one supplier.
- 1.9 Any deviation/substitution in regard to the technical specification must be indicated in Annexure C of this tender document. Otherwise it shall be binding on the bidder to supply the items as specified in this tender specification.

1.10 All bids are to be submitted on or before the due date and time. The bids shall be enclosed in an envelope and sealed duly marked "Tender for Supply, Installation, Testing & Commissioning of 3 nos. of 120 KVA True On -Line conventional type UPS with N+1 Redundancy In Parallel Mode (Excluding Batteries) for data center application.", Ref. No. NCB/CA21-270/212130 and mailed to the Head-Purchase. Offers delivered in person shall be deposited in the Tender Box kept in the office.

Due date for opening the bids: 02/04/2022 (17.30 hours)

1.11 All bids in response to this invitation of tender should be submitted in a manner and method specified above. Tender which do not comply with the above conditions are liable to be rejected.

1.12 Late and delayed tenders will not be considered. Therefore, tenderers shall ensure that the tender reaches the Purchaser on or before the due date and time stipulated for receipt of bids.

1.13 Individuals signing the bid form and other supporting documents must specify the capacity in which they sign, like -

- a) Whether signing as a Sole Proprietor of the firm or his attorney.
- b) Whether signing as a partner of the firm or his attorney
- c) Whether signing as Director of a Limited Company.

1.14 National Centre for Biological Sciences reserves the right to reject any or all the tenders without assigning any reason.

2. CATALOGUE/TECHNICAL LITERATURE

All necessary catalogue/drawing literature/data and details of item/s as are considered to be essential for full and correct evaluation of the bid shall invariably accompany the bid.

3. Bid Security declaration has to be submitted by the supplier as per the Annexure - D with duly seal and sign of the document.

4. Micro and Small Enterprises (MSEs):

1. Micro and Small Enterprises (MSE) must, along with their offer, provide proof of their being registered as MSE (indicating the terminal validity date of their registration) for the item tendered, with any agency mentioned in the notification of the Ministry of Micro, Small and Medium Enterprises (Ministry of MSME)

2. The MSEs are exempted from payment of earnest money and tender fees subject to furnishing of relevant valid certificate for claiming exemption as per privilege rules of Government of India.

3. The bidder submits registration of Udyog Adhar Memorandum (UAM) by Ministry of Micro Small and Medium Enterprises (MSME) vendors on Central Public Procurement Portal (CPPP). The bidders who fail to submit UAM number shall not be able to avail the benefits available to MSEs as contained in Public Procurement Policy for MSEs Order 2012 issued by MSME.

5. PRICE

The Tenders to be quoted in INR. For imported goods, to be quoted in currency of the approved currency from RBI. The price/s quoted shall be firm till the complete execution of the order. All details relating to price, price breakup, inland transportation, documentation, taxes and duties, levies, freight charges, delivery terms, mode of payment, mode of Despatch, Insurance should be clearly stated.

6. This invitation is only for Class “1” and Class “2” Suppliers as prescribed in “Public Procurement (Preference to Make in India) order 2017 of GOI. Dept of DIPP” (OM No. P-4502/2/2017-PP(BE-II) dated 04th June, 2020. Necessary certification for local content must be submitted by the prospective bidders strictly as per Annexure – E attached with the tender document.

For indicating the price, the tenderers may choose any/all of the following: The ‘Class-I Local Supplier’ / ‘Class-II Local Supplier’ at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for ‘Class-I Local Supplier’ / ‘Class-II Local Supplier’ as the case may be.

7. The taxes (State, Central, Turnover tax, Works Contract Tax, etc.). Please specify which are applicable. The duties and other levies, freight, insurance shall be stated clearly and separately. Also please mention whether the same is included in the price/s quoted.

8. VALIDITY OF BIDS

The bids shall be valid for a period of at least 90 days from the date of opening of the Price bids. Bids with shorter validity period are liable for rejection.

9. DELIVERY

The tenderer should clearly mention the time required for supplying the item. The period of delivery will be counted (a) from the date of receipt of the order in case of Indian supplier and (b) from the date of opening of letter of credit/receipt of order (in the case of sight draft/advance draft) for foreign suppliers. The delivery date is the date at which the equipment should be delivered at NCBS.

10. PACKING

The item should be packed appropriately so that it can sustain transit hazards, multiple landing, warehousing, etc. during transit.

11. PLACE OF DELIVERY

ALL DELIVERIES shall be effected to the National Centre for Biological Sciences, GKVK, Bellary Road, Bangalore-560065.

12. GUARANTEE/WARRANTY

The item/s covered under this tender shall be subject to a guarantee for trouble free performance, workmanship, material etc., fulfilling the specifications mentioned in this tender for **36 months** from the date of commissioning. If any defect is found in the material, workmanship or performance during the guarantee period the same may either be repaired/replaced by the supplier as the case may be free of charge. The guarantee period for replacement of parts or repair work shall be same as above. A guarantee certificate to this effect should be forwarded to us with your invoice. For order placed on foreign suppliers, the supplier shall specifically confirm that their Indian representatives, if any, will provide with after sales service and will attend to any repairs or technical problems that may arise.

13. PERFORMANCE B/G

The successful bidder shall have to execute a performance B/G in accordance with the guarantee/warranty for **3%** value of the order. This B/G has to be executed on an appropriate value of stamp paper in terms of a bank guarantee drawn on any nationalised bank or first class foreign bank and shall remain valid till the completion of the Defect Liability period/warranty period, with 6 months’ grace period.

14. TAXES AND DUTIES

The Centre shall deduct all taxes and duties, as applicable, from time to time from the bills payable.

15. PAYMENT TERMS

Net 30 days after successful supply, installation, testing and commissioning of the material received against the purchase order.

16. CLARIFICATIONS

After opening the bids, if it becomes necessary for the purchaser to seek clarifications from the bidders, the same will be sought from the bidders. In such an event, the bidders will furnish all technical information / clarifications to the purchaser to reach on or before the due date fixed for that purpose indicating the Purchaser's tender reference. If the technical clarifications sought do not reach on or before the date date fixed, the bids shall be summarily rejected without any further notice.

17. RISK CLAUSE

Notwithstanding the other terms therein, the Centre at its option will be entitled to terminate the contract and to avail from elsewhere; at the risk and cost of contractor; either the whole of the contract or any part which the contractor has failed to perform within the time stipulated or if the same performance is not available, the best and the nearest available substitute thereof. The contractor shall be liable for any loss which the Centre may sustain by reason of such risk contract in addition to penalty.

18. **As per O.M No. F.No.6/18/2019-PPD, dt.23/07/2020, the following condition to be fulfilled and the bidder to submit the following declaration on their Letter head. (Annexure – F)**

I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is Registered with the Competent Authority.

II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

III. "Bidder from a country which shares a land border with India" for the purpose of this Order means:-

- a. An entity incorporated, established or registered in such a country; or
- b. A Subsidiary of an entity incorporated, established or registered in such a country; or
- c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
- d. An entity whose beneficial owner is situated in such a country; or
- e. An Indian (or other) agent of such an entity; or
- f. A natural person who is a citizen of such a country; or
- g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.

19. "Debarment of bidders by the institute for committing of offences or breach of contract will be governed by the provisions of Government of India, Ministry of Finance, Department of Expenditure, Procurement Policy Division OM No.F/1/20/2018-PPD dated 02.11.2021 / relevant GFR provisions and based on approval of Nodal Ministry". Please submit the declaration for the same (Annexure - G)

19. DISPUTE AND RESOLUTION

Any dispute or differences between the parties that cannot be settled by mutual discussion at appropriate levels shall be referred to the sole arbitration of the Director, NCBS or his nominee and his decision in the matter shall be final and binding upon the parties to the dispute. The venue of arbitration proceedings shall be Bangalore and provisions of Arbitration Act for the time being in force in India shall be applicable. In respect of any matters pertaining to such arbitration, the courts of law in Bangalore will have exclusive jurisdiction.

20. DEFINITION AND MEANINGS

In constructing these conditions, specifications, etc. in the tender document or the Annexures/Appendices the following words shall mean herein assigned definitions except where the subject context is otherwise stated.

PURCHASER :	Shall mean the National Centre for Biological Sciences.
BID/TENDER :	Shall mean the proposal/document that the BIDDER submits in the requested and specified form or otherwise along with Annexures, Appendices, etc.
BIDDER/TENDERER :	Shall mean the firm/party who quotes against an enquiry.
CONTRACTOR/SUPPLIER :	Shall mean the party to whom a Work Order/Purchase Order Is awarded to undertake all or a part of the work covered by this tender document as well as an amendment orders relating to this tender issued by the Purchaser and shall include his/their legal representative, assignee/s or successor/s.
CONTRACT :	Shall mean and include the articles of agreement, Declaration form, the general and special conditions, the Annexures, the Schedule of Quantities & rates and the specifications attached hereto and the drawings, if any.
ORDER VALUE :	Shall mean total value of the Purchase Order/Work order issued against this tender item including taxes, levies, etc.

21. TECHNICAL SPECIFICATIONS

See Annexure – 'A'

22. The Price shall be FOR NCBS Stores.

23. NCBS reserves the right to split the quantities or reject one or more offers in full or part without any reasons. Therefore, NCBS decision is final and binding.

24. The quantity mentioned in the tender may be decreased/increased while ordering. However, the price quoted should be firm irrespective of change in the quantity.

25. ACCEPTANCE OF TENDERS

NCBS does not pledge itself to accept the lowest/ any tenders and reserves to itself the right to accept the whole or part of the tenders or a part of the quantity offered.

26. The Firm should quote in Rupees or FOR NCBS basis for supply.


27. Your Service Engineer should be fully trained to install the equipment and capable of maintaining the equipment during / after the warranty period.

28. LIQUIDATED DAMAGES

The successful bidder will have to agree that in case the item is not supplied within the agreed delivery schedule and after a grace period of seven days, then Liquidated Damages (not in terms of penalty) will be imposed automatically and be deducted from their bill at the rate of 0.5% per week subject to a maximum of 10% of the order value.

Please enter unit price, Total Price and Grand Total in figures as well as words. Unit price and Total Price may be entered below each item.

Since NCBS is a Public Funded Research Organization, registered under Government of India Notification No.51/96 – Customs and 10/97 – for Central Excise is applicable for the items listed in the notification.

For and on behalf of
National Centre for Biological Sciences,

Head-Purchase

ANNEXURE A – SPECIFICATIONS

Scope of Work: Supply, Installation, Testing & Commissioning of 3 nos. of 120 KVA True On -Line conventional type UPS with N+1 Redundancy In Parallel Mode (Excluding Batteries) for data center application at NCBS.

1. General specifications

- I. UPS Type : DSP control based ON-LINE Double Conversion Technology
- II. Capacity : 120 KVA/108 kW
- III. Battery Backup : Battery will be supplied by department
- IV. Battery Charger : Minimum 30Amps DC (Compatible/ adjustable
According to Battery capacity)
- V. Supply : Input: 3 phase 3 wire , Output: 3 phase 4 wire
- VI. Operation Mode : Normal (online), Emergency, Recharge,
bypass, Maintenance bypass.
- VII. Rectifiers and Inverters : IGBT with PFC control technology only
- VIII. Isolation Transformer : Suitable Isolation transformer for 120KVA on-line UPS (This shall be either inbuilt or external)
- IX. Overall Efficiency AC-AC at 100% load : $\geq 92\%$ (Online mode)
- X. Parallel Kit and configuration : All 3 nos. of 120KVA UPS should be connected in parallel mode, so vendor should quote including parallel kit and it should be compatible for ≥ 4 UPS in parallel mode.
- XI. Noise level at full load : ≤ 68 dba at 1 mtr from the UPS

2. INPUT

- I. Voltage Phase configuration : Three-phase, 3-wire
- II. Rated Line Voltage : 400 Volts,
- III. Voltage tolerance : 345Volts to 455 Volts
- IV. Nominal Frequency : 50 Hz
- V. Max/Min frequency : 50 Hz +/- 10%
- VI. Surge Protection : As per IEC standard
- VII. Input THDi : ≤ 3% at 100% linear load & ≤ 5% for nonlinear load
- VIII. Power factor : ≥0.95

3. OUTPUT

- I. Phase Configuration : Three-phase and Neutral plus ground (3P+N+E)
- II. Voltage : 400V/415 V (selectable)
- III. Voltage regulation : a) ±1% three-phase RMS average for a Static three-phase load for the combined variation effects of input voltage, connected load, battery voltage, ambient temperature, and load power factor.
 b) ±5% three-phase RMS average for a 100% Dynamic load for the combined variation effects of input voltage, connected load, battery voltage, ambient temperature, and load power factor.
- IV. Voltage Distortion (THDv) : Total harmonic distortion (THDv) ≤ 2% for Linear loads and ≤ 5% for 100% Non-linear loads.
- V. Crest factor : 3:1

- VI. Frequency : 50
- VII. Frequency regulation : 50 Hz +/- 1%
- VIII. Output power factor : ≥ 0.9
- IX. Overload Capacity : 101% - 120% for 10 minutes (without bypass source) and 150% for 1 minute (without bypass source).
- X. Wave form : Pure Sinusoidal
- XI. Output Voltage adjustment : 380V/400V/415V (Software Controlled adjustment)

4. Batteries :

Batteries will be supplied by department. Hence, vendor shall quote only for 3 nos of 120kVA UPS excluding batteries.

Note: Existing available battery rating and specifications are follows:

- Voltage & AH rating : 12 V, 150AH
- No. of batteries : No. of batteries will be provided according to the DC bus voltage
- Type : SMF, VRLA

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• 5. On-Line Battery Test

The UPS shall be provided with Auto On-Line Battery Test feature. The test shall ensure the capability of the battery to supply power to the inverter while the load is supplied power in the normal mode/On-line mode.

6. Battery Charger compatibility for desired arrangement: -

Each UPS battery charger should have capacity to recharge 150AH battery bank as indicated in the Sr.No.4. Hence UPS shall recharge batteries with 90% of its fully charged condition preferably within six to eight (6-8) hours and at the same time supplying full load current to the system. The charger should have the Temperature Compensated Charging. The battery charger

output voltage shall be automatically adjusted in proportion to the ambient temperature of the battery to avoid over-charging.

The system must include one or more battery chargers with following technology and features:

- with IGBT technology.
- separate from the rectifier.
- with charging voltage independent from the DC bus voltage.
- dedicated and independent for each accumulator bank.

The battery charger must be able to operate with the following types of accumulator:

Lead acid, vented & SMF VRLA.

Depending on the temperature, the battery charger shall be able to select the most suitable recharge method automatically, without operator intervention, alternating float mode in combination with “intermittent” charge in such a way as to limit the effects of corrosion (plate sulphation) and significantly prolong battery life. The maintenance charge voltage must be automatically regulated in relation to the temperature of the battery compartment. The battery compartment must be equipped with a temperature sensor for this purpose.

The following parameters must be adjustable and configurable:

- maximum recharge current limit,
- constant float mode current and voltage,
- Switching threshold from fast recharge mode to maintenance mode.

The battery charge regulation and control circuit shall also provide the following functions:

- Continuous monitoring of the battery circuit (battery interrupted) with visual alerts on the local user interface.
 - Monitoring of battery efficiency, via partial discharge at settable intervals; the check consists in continuously monitoring the discharge current and comparing it with the ideal discharge curve.
- Continuous monitoring of the battery charger's output voltage to ensure it remains within the limits required to optimize battery life. Recharging voltage anomaly alerts followed by deactivation of the charger;
- Residual battery capacity display.

7. Paralleling Kit

Equipment shall be equipped with paralleling kits by this way, 3x120kVA UPS are operating in N+1 parallel/Synchronizing mode and also it shall be compatible for ≥ 4 units in parallel.

8. Isolation Transformer

Suitable rating isolation transformer, for 120KVA 3Phase UPS (Either inbuilt or external) with Copper winding shall be supplied and installed along with each UPS test reports (Efficiency and losses) of the isolation transformer shall be enclosed along with the technical bid. The cooling of Isolation transformer shall be by forced cooling with inbuilt cooling fans.

In case of external transformer, The following accessories should be equipped with transformer.

1. Transformer should have metal enclosure with movable wheel.
2. Necessary cooling fan with protection (Fuse/MCB).
3. Phase Indication Lamps, I/P & O/P Terminal connectors with cover.

9. Operating Ambient Temperature:-

UPS Module : 0°C to 40°C

10. Cooling

Cooling of the UPS shall be by forced air and there should be redundant fans.

- **11. Grounding**

The AC output neutral shall be electrically isolated from the UPS chassis. The UPS chassis shall have dedicated equipment ground terminal. Provisions for local bonding shall be provided.

- **12. Wiring, Termination and Installation**

The scope of work includes Supply, Installation, power & control wiring with end termination (UPS side for power wiring) and Commissioning of 3 nos of 120KVA UPS in parallel mode. Wiring practices, materials and coding shall be in accordance with the requirements of the National Electrical Code (NFPA 70). All bolted connections of bus bars, lugs, and cables shall be in accordance with requirements of the National Electrical Code and other applicable standards.

Note: The following materials will be supplied by department.

- a) Input power cable
- b) Output power cable
- c) Battery cable from UPS to Battery bank.

13. Conformity to standards:

The system must conform to the following standards: Necessary certificate from IEC shall be submitted wherever required.

- Safety: EN62040-1.
- EMC emissions: EN62040-2.
- EMC immunity: EN62040-2 class C2 and C3.

Certification:

The vendor should submit the Type Test Report from Central Govt. /NABL/ILAC Accredited lab covering all technical requirements along with the technical bids for the offered model.

- **14. Monitoring and Control**

The UPS shall be provided with a DSP based unit status display and controls section designed for convenient and reliable user operation. All of the operator controls and monitors shall be located on the front of the UPS cabinet. The monitoring functions such as metering, status and alarms shall be displayed on the graphical LCD display. Additional features of the monitoring system shall include:

Menu-driven display with pushbutton navigation
Real time clock (time and date)
Alarm history with time and date stamp
Battery backed-up memory

System should be equipped with inbuilt TCP/IP enabled **SNMP card** for remote monitoring and control. It should generate alert for events. The SNMP card should be programmable to send email, SMS's over a GSM modem to report particularly important alerts and events.

15. Display & Metering:

- Input AC voltage line-to-line/ line-to-neutral for each phase
- Input AC current for each phase
- Input frequency
- Battery voltage and DC bus voltage
- Battery charge/discharge current
- Output AC voltage line-to-line and line-to-neutral for each phase
- Output AC current for each phase
- Output frequency
- I/P & O/P Apparent power for each phase
- I/P & O/P Active power for each phase
- I/P & O/P kWh meter

- Battery time left during battery operation
- **16. Alarm Messages:**

The interface must be able to display at least the following status or event information and UPS monitoring should be web based and user friendly.

- Input power out of tolerance
- Battery charger problem
- Battery test failed
- Low battery warning
- Low battery shutdown
- DC bus overvoltage
- Bypass frequency out of range
- Load transferred to bypass
- Excessive retransfers attempted
- Static switch failure
- UPS output not synchronized to bypass power
- Output under voltage
- Output overvoltage
- Output over current
- System output overloaded
- Load transferred to bypass due to overload
- Overload shutdown
- Control error
- Critical power supply failure
- Load transferred due to internal protection
- External shutdown (remote EPO activated)
- Fan failure
- Over temperature shutdown
- UPS is on battery operation
- UPS is on bypass operation
- Battery mode with mains supply / no mains supply
- battery low charge warning
- abnormal battery recharge voltage
- minimum battery voltage

- battery fault
- battery charge circuit broken
- battery charger system fault
- overload alert
- out of range temperature/humidity alert
- standby power supply out of tolerance

The UPS must predict potential criticalities for the UPS itself, due to ambient conditions, in advance and alert the maintenance service / monitoring system.

17. Diagnostics

The system will be equipped with a microprocessor able to run full machine diagnostics to determine:

- Self-compensation of components to ensure stable settings over time;
- Acquisition of the main diagnostic and monitoring information by computer (local or remote);
- Full test procedure at full load on UPS, with no further external loads (auto-charge mode)

The UPS should have provision for 24h remote monitoring and maintenance. So, suitable SNMP card should be available in the individual UPS.

18. Uninterrupted Transfer / Retransfer

The transfer control logic shall automatically turn on the static transfer switch, transferring the critical AC load to the bypass source, after the transfer logic senses any of the following conditions:

- Inverter overload capacity exceeded
- Critical AC load overvoltage or under voltage
- Battery protection period expired
- Out of tolerance inverter input DC voltage
- Over temperature
- Inverter fault

Retransfer of the critical AC load from the bypass source to the inverter output shall be automatically initiated unless inhibited by manual control.

19. Maintenance bypass

The manual bypass switch will be provided internally and must ensure that equipment downstream of the UPS is supplied directly by the UPS upstream power source when rectifier, inverter and static switches are open. Switching to the manual bypass and back will be possible without load supply interruption (Make Before Break).

20. Replacement Parts Stocking

Parts shall be available through an extensive network to ensure around-the-clock parts availability throughout the country. Recommended spare parts shall be fully stocked by local field service personnel (in Bangalore office) with back-up available from national parts center and the manufacturing location. The national parts center Customer Support Parts Coordinators shall be on-call 24 hours/day, 7 days/week, and 365 days/year for immediate parts availability. Tenderers may also produce Bangalore service center address along with strength support in the form of escalation chart. The UPS systems are going to feed the power to very critical equipments, and it is the responsibility of local service team to attend any emergency situation immediately during warranty period as well as post warranty period. Hence, service center at Bangalore is very much essential.

- **21. Battery Circuit Breaker:** Battery breaker will be provided by the department.

22. Other Protections

- Battery protection period expired, Input Over/ under voltage, and Output over / under voltage, Output short circuit, Inverter overload, Rectifier overload, Inverter Overvoltage/under voltage, over temp, surge protection.
- **It must have Generator Compatibility.**
- Must have complete protection for EMI / RF as per the IEC standard.
- Units have built in surge, spike and line noise protection.
- It should have Intelligent Battery Management system
- **UPS should be compact and with small footprints.**
- UPS sound level should be within the limit as per the standard/Specification.

23. Warranty/Guaranty:

The equipments supplied shall be guaranteed against all types of defects for a period of **Three years (3 years)** from the date of handing over of the equipment to NCBS after successful completion of acceptance testing. Any defects in the system/subassemblies found within the guarantee period shall be rectified/replaced by the supplier free of cost.

During this period, servicing at bimonthly interval or earlier, as prescribed by the manufacturer and as mutually agreed to, shall be carried out free of cost. It also includes battery health checks of the all the battery banks. Supplier shall also indicate the service facility they can offer at the place of installation and the telephone number and address of their service center. During the warranty period, breakdown call response time should be within 4 hrs in all working hours and 24hrs during after office hours and weekends.

Note: During warranty period, vendor should arrange for "On line battery impedance test" for the complete system once in Six month period.

The track record of the firm in implementing and maintaining similar UPS systems, the nearest local(Bangalore) service establishment and the promptness in attending to service/breakdown calls shall also form basis of tender evaluation.

24. Rating and parameters test

a) Rating & Performance test at Factory:

4 hrs full load endurance test shall be carried out at factory premises and followed by 110% load for 1 hr period. Test to ascertain the rated and transient capacities, overall efficiency and other parameters mentioned below of the system will be carried out at factory.

All the following tests and any or other relevant tests, if specifically asked for, shall be carried out on all 3 nos. of UPS as per the relevant standards with latest amendments prior to dispatch of the UPS in the presence of inspecting Officer from the department if required.

Vendor shall give reasonable advance notice and shall make all arrangements for facilitating this inspection if opted by the department. Copies of the test certificates shall be furnished to the department.

- Voltage and frequency regulation, Efficiency
- THDv and THDi
- Input and output power factor with different load level
- Voltage and Current wave Phase angle
- TVD & TVR from 20% to 100% rated full load & 100% to no load
- Unbalance load test and Noise level measurement
- Overload test

b) Commissioning, Rating & Performance Test at NCBS:

In addition to tests at manufacturer's premises, all relevant pre-commissioning checks and tests shall be done before switching on the UPS. The following tests shall be carried out prior to commissioning at NCBS site.

Two (2 hrs) hrs full load test shall be carried out at NCBS premises. The vendor should arrange all load banks with necessary cable arrangement along with metering (Digital oscilloscope/power analyzer- to find out transients and I/P & O/P wave forms. Test to ascertain the rated capacities, overall efficiency, Battery charging and discharging performance and other parameters mentioned below,

- Voltage and frequency regulation,
- Overall Efficiency AC/AC
- THDv and THDi
- Input and output power factor with different load level
- Voltage and Current wave Phase angle
- TVD & TVR from 20% to 100% rated full load & 100% to no load
- Battery charging & Discharging performance

The quoted rates are inclusive of all tests to be carried out as per Sr.no 24a & 24b, no extra charges will be paid against the testing. The necessary arrangements including load banks, measuring instruments, tools, etc.. shall be arranged by the vendor to perform above tests.

25. Conditions for Acceptance of offered UPS:

The satisfactory Rating & Performance test at Factory and at NCBS meeting the prescribed limits will only be construed as acceptance of the UPS. If there is any deviation found from the Tender specification, the offered UPS may summarily be rejected on not meeting the Tender Specifications.

26. Scope of Installation:

All 3 nos of 120 kVA UPS shall be installed at existing base Frame. The proposed 3x120KVA UPS systems will be installed at basement of SLC building at NCBS, it is vendor responsible to shift the UPS at above mentioned location.

Note:

The Contractors shall submit all technical supporting document details/third party certificates of the system along with the tender.

The Tenderers shall give the names and full postal addresses of their clients (data center) from Bangalore to whom similar equipments have been supplied by them.

The tenderers shall attach latest two purchase order copy/performance certificates (similar equipments i.e 120kVA UPS) from the existing clients (data center) from Bangalore.

27. Vendors are required to fill the following sheet and submit along with technical bids.

Sr.no	Description	To be filled by vendor	Remark if any
1.	UPS make & Model		
2.	Capacity/Rating		
3.	Output voltage & Frequency		
4.	Regulation: a. O/P voltage regulation b. O/P frequency regulation		
5.	Input power factor		
6.	Output power factor		
7.	No. of phases- Input / Output		
8.	Overall efficiency-online mode AC-AC		
9.	Input Current THDi		
10.	Output Voltage THDv		
11.	Battery charger rating:		
12.	Over loading capacity		
13.	Warranty for entire system		
14.	Parallel configuration		

28. Criteria for Evaluation of the Performance of Contractors for pre-eligibility

The following Parameters of Technical Bid will be taken into account for Short listing the Commercial Bid. The Proposals shall be evaluated in two stages: (1) Technical and (2) Price / Financial. A Minimum qualifying mark is set as per below table and only those Agencies whose Technical Proposals score the minimum mark of 75% and above shall be considered for Financial Evaluation.

Evaluation table

Sr. no	Evaluation of vendor	Max marks	Evaluation
1	<p>General specifications:</p> <p>(i) UPS type: DSP control based On-Line double conversion technology</p> <p>(ii) UPS Capacity: 120kVA/108kW</p> <p>(iii) Total Efficiency AC/AC at 100% load(online mode) : ≥92%</p> <p>(iv) Output power factor : ≥0.9</p> <p>(iv) Parallel configuration : ≥4 units</p> <p>(v) Rectifier/Inverter : IGBT with PFC control</p>	25	All the parameters are very critical for our application, so each parameter will be considered for evaluation purpose.
2	<p>UPS Input configuration as per technical specification indicated in Sr.no.2</p> <p>UPS Output configuration as per technical specification indicated in Sr.no.3</p>	20	
3	The vendor should submit the Type Test Report from Central Govt. /NABL/ILAC Accredited lab covering all technical requirements along with the technical bids for the offered model.	15	
4	Performance Report from the 3 clients of similar type of UPS supplied and executed within 5 years	15	

5	Obtaining Confidential Report by NCBS for the similar nature of works executed from 3 clients to access the quality of the job	10	
6	Local service center and team strength. And service escalation matrix	10	
7	Warranty/Guaranty: 3 years from the date of commissioning and handed over the system to department. Please mention in writing.	5	

To become eligible for short listing, the bidder must secure all the attributes and should score the minimum mark of **Seventy Five percent (75%)** marks in aggregate.

The department, however, reserves the right to restrict the list of such qualified contractors to any number deemed suitable by it.

Even though any bidder may satisfy the above requirements, he would be liable to disqualification if he has;

- a. Made misleading or false representation or deliberately suppressed the information in the forms, statements and enclosures required in the eligibility criteria document.
- b. Record of poor performance such as abandoning work, not properly completing the contract, or financial failures / weaknesses etc.

ANNEXURE - B

SCHEDULE OF EXPERIENCE

Please furnish list of major supplies/works undertaken in relevant to this tender during the past two years.

Sl. No.	Name of the company with full address	Name of project	Purchase Order No. & date	Brief description	Value (Rs.)
Signature					
Name					
Designation					
Name of company					
Date					
Seal of the company					

ANNEXURE – C

SCHEDULE OF DEVIATION FROM SPECIFICATIONS/CONDITIONS

All deviations from the specifications/conditions shall be filled in by the bidder in this schedule.

--

The bidder hereby certifies that the above mentioned are the only deviations from Technical Specification of this tender. [State NIL if no deviation is envisaged].

Signature	
Name	
Designation	
Name of the company	
Date	
Seal of the company	

Bid Security Declaration for Order Value > Rs.5 Lakh
(to be submitted on Company's Letter Head)

I/We the undersigned hereby declare that if we withdraw or modify the bids during the period of its validity, or if we are awarded the contract and fail to sign the contract, or to submit a performance security before the deadline defined in the request for bids document or fail to execute the contract, we will be suspended for the period of time specified in the request for bids document from being eligible to submit bids for contracts with the entity that invited the bids.

Name and Signature
of Authorized Signatory
and Company Seal

Certificate for Local Content

“We (name of manufacturer) hereby confirm in respect of quoted item(s) that Local Content is equal to or more than 50% and come under “Class-I Local Supplier” Category. As being “Class – I Local Supplier”, we are eligible for Purchase Preference under “Make in India” Policy vide GOI Order No.P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020).

OR

“We (name of manufacturer) hereby confirm in respect of quoted item(s) that Local Content is more than 20% but less than 50% and come under “Class-II Local Supplier” Category.

The details of the location (s) at which the local value addition made is/are as under:

- 1.
- 2.
- 3.

*Strike out whichever is not applicable

Date:

Seal & Signature of the Bidder

NOTE:

1. Self-certification that the item offered meets the minimum local content (as above) giving details of the location(s) at which the local value addition is made in case the bidder wishes to avail the benefits under the make in India policy, if applicable.
2. In cases of procurement for a value in excess of Rs.10 crores, the local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content to avail the benefits under the make in India Policy, if applicable.

Declaration of Compliance of Order (Public Procurement No.1, 2 & 3) dtd 23-Jul-2020 & 24 Jul 2020 on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017

ANNEXURE - F

This declaration must form part of all tenders & it contains general information and serves as a declaration form for all bidders. (Before completing this declaration, bidders must study the General conditions, Definitions, Govt Directives applicable in respect of Public Procurement No.1, 2 & 3) dtd 23 Jul 2020 & 24 Jul 2020 on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017 & prescribed tender conditions).

DECLARATION BY AUTHORISED SIGNATORY OF THE FIRM

I, the undersigned, (full names), do hereby declare, in my capacity as of M/s. (name of bidder entity), that:

- 1) The facts contained herein are within my own personal knowledge.
- 2) I have read the Order (Public Procurement No.1, 2 & 3) dtd 23 Jul 2020 & 24 Jul 2020 on the subject of Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017 regarding restrictions on procurement from a bidder of a country which shares a land border with India and comply to all the provisions of the Order.
- 3) I certify that M/s. (name of bidder entity) is not from such a country or, is from such a country (strike out whichever is not applicable), has been registered with the Competent Authority. I hereby certify that the SUPPLIER fulfills all requirements in this regard and is eligible to be considered. (Where applicable, evidence of valid registration by the Competent Authority is attached).
- 4) I understand that the submission of incorrect data and / or if certificate / declaration given by M/s. (name of bidder entity) is found to be false, this would be a ground for immediate termination and further legal action in accordance with law as per clause 12 of the Public Order on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017.

AUTHORISED SIGNATURE: _____

DATE: _____

Seal / Stamp of Bidder

ANNEXURE - G

Declaration
(to be submitted on Company's Letter Head)

*I, the undersigned, (full names),
do hereby declare, in my capacity as
of M/s (name of bidder
entity), that:*

- 1) The facts contained herein are within my own personal knowledge.*
- 2) I have read the Order and provisions of Government of India, Ministry of Finance,
Department of Expenditure, Procurement Policy Division OM No.F/1/20/2018-PPD dated
02.11.2021 and confirm that I/we have not been convicted of an offence and not engaged in any
of the acts as mentioned below:*

A bidder shall be debarred if he has convicted of an offence-

(a) under the Prevention of Corruption Act, 1988: or

*(b) the Indian Penal Code or any other law for the time being in force, for causing any loss of life
or property or causing a threat to public health as part of execution of a Public Procurement
Contract*

AUTHORISED SIGNATURE:

DATE: _____

Seal / Stamp of Bidder