



Indian Association for the Cultivation of Science

Jadavpur, Kolkata -700032, West Bengal, India, E-mail: admchg@iacs.res.in

Phone: 2429 2816 (Direct) 2473 4971/3372/3073 Fax (91) (33) 24732805

No. EI/ 047/Adm/14

Date:23/04/2014

PURCHASE ENQUIRY NOTICE (2nd Call)

Sub: Purchase Enquiry for 1 no. 20 KVA (3-Phase to 3-Phase) Double Conversion On-Line UPS with 60 minutes battery Back-Up time for the DR Site Server at Computer Centre at IACS of Jadavpur.

Sealed Quotations are invited from Nationally/Internationally reputed manufacturers or from their authorized distributors/dealers having Marketing and Servicing establishments all over India including Kolkata (it is a must to qualify a bidder in the technical bid) who are having credential of supplying at least 15 Nos. of UPS of similar capacity or above as asked for to Govt. Organization/ Research Institute / Highly Reputed Private Organization for Industrial/Research Application etc. during the last 3 years to be reckoned from the date of publication of this Purchase Enquiry Notice.

Interested vendors may send their sealed quotations in two separate envelopes for **two-bid system** ("Technical Bid" & "Financial Bid") **which would be covered by a third envelope** mentioning the **item to be purchased, Enquiry no. & due date of opening on the top of the envelope to the receiving / dispatch section of IACS, Jadavpur on or before 15.05.2014 (up to 2 p.m), out of which only the envelope containing "Technical Bid" will be opened on the same day at 3.30 p.m. in presence of the intending bidders or their authorized representatives** under the following terms & conditions. If it falls on holiday, the quotations will be opened on the next working day at 3.30 P.M. and in that case, the quotations will also be received upto 2 p.m. on the next working day. However, it is categorically mentioned that, the "Price Bid" will be opened subsequently only in respect of the Bidder(s) who will qualify in the "Technical Bid". The Time, Date & Venue of opening of "Price Bid" will be notified at a later stage through IACS website.

1. The validity of the quotation should not be less than 45 days for acceptance from the date of opening of "Technical Bid" by IACS. **The quoted rate should be inclusive of all taxes & duties including delivery charges etc.** Nothing extra will be paid to the supplier over the accepted rate. However, statutory changes (if any imposed subsequently) in respect of taxes & duties etc. by the Govt. of India / State Govt. after opening of quotation may be considered by IACS to pay/deduct on actual basis.

2. An **Earnest Money Deposit (EMD)** of **Rs. 7,000/-** (Rupees seven thousand only) to be enclosed with the "Technical Bid" in a **separate envelope** favoring **"Indian Association for the Cultivation of Science"** through **pay order/ demand draft/ banker's cheque** on any RBI Scheduled Bank payable at par at Kolkata. The EMD for successful bidder will be adjusted with the security deposit. No Bid shall be considered for evaluation if it is not accompanied with the EMD in proper form as mentioned above. **No exemption of any kind in this regard shall be allowed.** However, EMD of unsuccessful bidders will be refunded within one month of rejection of their bid.

3. The "Technical Bid" shall contain the copy of documents viz. **credential** to fulfill the eligibility criterion as asked for in this purchase enquiry notice, **Earnest Money Deposit (EMD), printed product literature of the manufacturer against the specified capacity asked for & type/model in original (Photo Copy will be accepted if it is authenticated by a responsible officer of the manufacturer,)** copy of VAT / Sales Tax registration certificate, copy of Income Tax PAN, TAN, valid Dealership /Distributorship Certificate issued by the manufacturer, client list, warranty provision, copy of purchase order to establish the credential of supply of requisite quantity as specified above, type test certificate against the model to be offered etc. The Type Test Certificate should be obtained from any Govt. / NABL approved laboratory towards compliance of the specifications as asked for in the NIT without any extra cost on the UPS. However, **User's Manual & Routine Test Certificate of the manufacturer against the UPS to be delivered is to be submitted along with challan etc. at the time of delivery, without which material will not be accepted.**

4. The "Price Bid" shall contain only the **Priced Offer for supply of the UPS** where, the offer for **5-years Post Warranty Comprehensive Annual Maintenance Contract (AMC) rate** should also be mentioned which shall include preventive and breakdown maintenance (Break down call has to be attended within 24 hours) of the UPS along with cleaning & health check-up of battery bank, once in a 3 months interval generally. A separate Work Order for post warranty AMC shall be issued by IACS (if the AMC is required for) year wise at an appropriate time on expiry of warranty subject to satisfactory performance during the past period.

5. The evaluation of Lowest Bidder (L 1) will be decided based on the total quoted price which will include the cost of supply of UPS plus the cost of post warranty 5 years comprehensive AMC with all taxes etc as on date. The accepted price shall remain firm during the currency of contract (except for subsequent variation of taxes & duties etc.).

6. Delivery of the UPS & its accessories at site at IACS shall be made **within 30 (Thirty) days** from the date of issue of Purchase Order, failing which penalty will be imposed @ 1% per week or part thereof subject to a maximum of 5% of the value of the purchase order. However, any further delay beyond this limit may prompt IACS to cancel out the order including forfeiture of the EMD.

7. i) 90% payment of the purchase order value will be made against successful delivery & trial run (subject to availability of site). ii) 10% of the Purchase Order value duly adjusted with the EMD shall be retained with IACS as Security Deposit, which will be released after 6 (six) months on satisfactory performance of the equipments. TDS will be debited as per prevailing rates from the bill. Security Deposit may also be given in the form of Bank Guarantee (for not less than eight months period) before completion of work and in such cases 100% payment will be released including the EMD.

8. Payment is likely to be cleared within 45 days after submission of bills with required documents against successful delivery & trial run.

9. The UPS to be supplied should have **warranty of not less than 12 months** from the date of successful trial run or 18 months from the date of successful delivery whichever is earlier. However, the **Warranty of Battery should not be less than 2 years** from the date of successful supply of the Battery. The battery to be supplied should be suitable for UPS application.

10. The scope of work under this purchase enquiry notice shall include the interconnections among batteries and interconnection between UPS & battery in order to make the UPS in ready to use condition along with supply of all materials required for including suitable battery rack.

11. The bid must carry the signature (with company seal) of authorized signatory of the company/firm on each page of this purchase enquiry document along with other documents to be submitted with the bid.

12. Complete Purchase Enquiry Document will also be available at www.iacs.res.in and can be downloaded for submission. **Conditional offer including conditional rebates shall be summarily rejected.** In case of any discrepancies, the office copy will be referred and shall be binding to the bidders.

13. Higher rating (KVA/KW) UPS may be offered as per product range of the manufacturer. However, no extra weightage will be given for offering higher rating UPS during evaluation of Tender.

14. The IACS authority may seek/ask for any clarification/additional documents from the participated vendors in order to make suitable decision in selecting them eligible for opening of their financial bid during scrutiny of the quotations. On the other hand, if any doubt is raised after going through this purchase enquiry notice, the same may be e-mailed to us (admchg@iacs.res.in) at least three days before the last date of submission of Quotation for clearing the doubt/obtaining our confirmation and accordingly, all the prospective bidders are requested to follow our website (www.iacs.res.in) in a regular manner to notice any change /development (if any) pertaining to this purchase enquiry notice.

15. The IACS authority reserves the right to reject any or all the offers without assigning any reason thereof.

(Dr. U. SADHU)
REGISTRAR

Copy to:

- 1) T. O. (Elect.), IACS for kind information pl.
- 2) Prof. U. Chattopadhyay, Chairman, CUC, IACS, for kind information pl.
- 3) F&A.O., IACS, for information pl.
- 4) In-charge, Computer Centre, IACS, -He is requested to Up-load this notice to IACS, website.
- 5) Sr. Security Officer, IACS, for information pl.
- 6) Receiving & Despatch Section of IACS for information & necessary action pl.

**SPECIFICATIONS FOR 20 KVA (3-PHASE TO 3-PHASE) DOUBLE CONVERSION TYPE ON-LINE UPS
WITH 60 MINUTES BATTERY BACK-UP TIME: -**

The Uninterrupted Power Supply (UPS) System should be designed and manufactured with latest high Power Transistors in high frequency Pulse width Modulation (PWM) switching mode of IGBT based fully automatic (DSP controlled) micro processor based designed & housed in a compact rigid stylish cabinet with following features and specification.

Input:

1. Supply Voltage System: 3 Phase, 4 wire, 50Hz, 415V (Nominal line voltage)AC.
2. Voltage Range: +10% -15% (minimum)
3. Supply Frequency: 50 Hz
4. Frequency Range: $\pm 5\%$ on 50 Hz
5. Input Power Factor: Better than 0.9 lagging at full load.

Output:

1. Power Capacity: 20 KVA / 18 KW (Continuous) at 0.9 p.f.
2. Terminals: 3 Phases with a Neutral and Earth.
3. Terminal Voltage: 415V AC (Which could be adjusted at site for obtaining 380V & 400V also).
4. Voltage Regulation: $\pm 1\%$
5. Frequency: 50 Hz
6. Permissible Variation: $\pm 0.5\%$
7. Crest Factor: 3:1
8. Wave Form: Pure Sine Wave
9. Total Harmonic Distortion: $\leq 2\%$ for 100% linear load & $\leq 5\%$ for non-linear load
10. Efficiency: overall efficiency $\geq 90\%$
11. Soft starting: 0-100% in 10 Sec with ability to Cold start directly on battery
12. Over load Capacity: 110% for minimum 5 minutes & 150% for minimum 1 minute.

Battery:

1. Type: VRLA type Sealed maintenance free (SMF)
2. Battery terminal voltage: 12V DC
3. Back up duration: 60 minutes (VAH=32000 Minimum)
4. Brand: Amar Raja (Quanta) / Exide (Power safe)

Bypass:

1. Switch: Static, Line Synchronized
2. Transfer Time: Zero-no-break
3. Manual: For maintenance Purpose

Protections:

1. Input / Output- Over Voltage
2. Input-Under Voltage
3. Output : Over load/Short Circuit
4. Battery under Voltage etc.
5. Support for 100% phase unbalanced load

Indication:

Mimic with large LED for flow of power and status information with bar graph for load and battery incorporated with low battery / Fault and load on bypass Alarm etc.

Environmental:

1. Altitude \leq 1000 Mtr. above MSL
2. Operating Temp = 0~40°C
3. Noise level: \leq 65dB
4. Humidity = 5% to 95% (without condensation)
5. Ventilation = by internal intake fans.
6. Enclosure = IP-20 or better.
7. Cable Entry: Back side (Bottom) Preferred.

Other Features:

1. Automatic Boost charger & in-built battery bank supply disconnection switch.
2. Computer interface through RS-232 communication port.
3. Front access for maintenance
4. Input harmonic filter
5. Phase Reversal Protection.
6. PVC insulated Copper flexible Cable for Input & Output power loop of the UPS of not less than 5 Mtrs. of length on each side (cross-sectional area of cables should not be less than 1.5 times the rated current of the UPS) with adequate protection against mechanical damage of the same conforming to the relevant provision of I.E. Rules & regulations .
7. The UPS with enclosure having weight more than 60 kg should be attached with heavy duty trolley mounted base for easy shifting & maintenance work.
8. The UPS shall be capable to supply the rated output power and charging current simultaneously.
9. It should have provision for parallel operation of (N+1) no. of UPS where, N should be less than or equal to 3.
10. **The UPS should not have any in-built isolation transformer. So the prospective bidders are requested not to quote any such model of UPS.**

(S.Bose)
Technical Officer (Elect.)