

Speed Post



**वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्
Council of Scientific and Industrial Research
अनुसंधान भवन 2 रफी मार्ग नई दिल्ली 110001
Anusandhan Bhawan, 2 Rafi Marg, New Delhi-110001**

No. 13-2(29)/2008-09-Pur.

Dated: 22nd July 2008

From:

संयुक्त सचिव(प्रशा.)

Joint Secretary(Admn.)

To

M/s

Sub: Procurement of one no. of 40 KVA UPS(N+1*) Hot Swappable Modular Rack Mount UPS with expandability Option.

Sir,

This office is interested in the procurement of the items mentioned below strictly as per the terms and conditions as mentioned in Annexure 'B'. The proforma for quoting Financial Bid and EMD through Bank guarantee are enclosed at Annexure 'C' and Annexure 'D' respectively.

S.no.	Detailed Specification	Qty
1.	40 KVA UPS(N+1*) Hot Swappable Modular Rack Mount UPS with expandability Option (* where N is not less than 18KW and N+1 is equal to 40 KW or better) with two years onsite comprehensive warranty including batteries(technical specifications enclosed at Annexure 'A')	One

Total: Ten pages

**(R.C. Gupta)
Stores & Purchase Officer**

Annexure 'A'

S.no.	Technical Specifications for 40 KVA UPS Rack Mountable System	Compliance	Deviations, if any
A	SUMMARY		
1	Make: Specify Model: Specify		
2	40 KVA UPS(N+1*) Hot Swappable Modular Rack Mount UPS with expandability Option(* where N is not less than 18 KW and N+1 is equal to 40 KW or better)		
B	GENERAL SPECIFICATIONS		
1	This specification describes the operation and functionality of a continuous duty, three-phase input, solid-state, static Uninterruptible Power System(UPS) hereafter referred to as the UPS shall be comprised of hot swappable/user replaceable ups modules, which shall operate in parallel, and be configured for N+1		
2	Each ups modules contains a full rated input rectifier, full rated output inverter		
3	The system shall also comprise of a continuous duty bypass static switch		
4.	The system shall also comprise of a user-replaceable hot swappable battery modules, in a rack form factor which can be swapped with out switching of the ups modules when required.		
5.	The system shall also comprise of redundant UPS modules, which can be swapped with out disturbing the load.		
6.	The unit should come is Standard 19 inch 42U Rack conform to EIA-310, shall be designed with four(4) vertical posts to allow rack mount equipment installation & to helps to reduce the useage of floor space to minimum. Total solution should not exceed more than three 42 U rack space or equivalent covered area or less than the mentioned area.		
7.	The ups units & the batteries shall be scalable with out shutting down the mission critical Server Room Load.		
C	MODES OF OPERATIONS		
1.	A. Normal: The input converter and output inverter shall operate in an on-line manner to continuously regulate power to the critical load		
2.	B. Battery: Upon failure of the AC input source, the critical load shall continue being supplied by the output inverter, which shall derive its power from the battery system. There shall be no interruption in power to the critical load during both transfers to battery operation and retransfers from battery to normal operation.		

4.	C. Static Bypass: The static bypass shall be used to provide transfer of critical load from the Inverter output to the bypass source. This transfer, along with its retransfer, shall take place with no power interruption to the critical load. In the event of an emergency, this transfer shall be an automatic function.		
5.	E. Maintenance Bypass: The system shall be equipped with an external make-before-break Maintenance Bypass to electrically isolate the UPS during routine maintenance and service of the UPS. The MBC shall completely isolate both the UPS input and output connections.		
D	SYSTEM CHARACTERISTICS		
1	System Capacity: Specify		
2	UPS Input:		
a	AC Input Nominal Voltage:400/415 V,3 Phase, 4 wire + G, 50 Hz		
b	AC Input Voltage Window: 304 Volts to 477 Volts(while providing nominal charging to the battery system)		
c	Maximum Frequency Range: 40-70 Hz		
d	Input Power Factor:		
	b. $\geq .99$ at 100% load		
e	Input Current Distortion:		
	The input current THD _i shall be held to 7% or less at full system, This shall be true while supporting loads of both a linear or non-linear type. This shall be accomplished with no additional filters, magnetic devices, or other components.		
f	Soft-Start:		
	As a standard feature, the UPS shall contain soft-start functionality, capable of limiting the input current from 0-100% of the nominal input.		
3	UPS OUTPUT		
a	AC Output Nominal Output: 230V, 400V 3 Phase		
b	AC Output Voltage Distortion: Max. 3% @ 100% Linear Load.		

c	AC Output Voltage Regulation +/- 1% For 100% Linear or Nonlinear Load		
d	Voltage Transient Response: +/- 5% maximum for 100% load step		
e	Voltage Transient Recovery within < 60 milliseconds		
f	Output Voltage Harmonic Distortion:		
	a. < 2% THD maximum and 1% single harmonic for a 100% linear load		
	b. <5% THD maximum for a 100% non-linear load		
h	Overload Rating: Normal Operation:		
	1) 150% for 30 seconds or better		
	2) 115% for 120 seconds or better		
j	Output Power Factor Rating: 0..9 lagging to unity		
l	Battery Protection:		
	The inverter shall be provided with monitoring and control circuits to limit the level of discharge on the battery system		
4	System over all efficiency: >90%		
5	BATTERIES		
a	The UPS battery shall be of modular construction made up of user replaceable, hot swappable, fused, battery modules. Each battery module shall be monitored for voltage and temperature for use by the UPS battery diagnostic, and temperature compensated charger circuitry.		
b	Battery module shall be of the Valve Regulated Lead Acid(VRLA) type. Minimum VAH has to be 30000.		
c	The UPS shall incorporate a battery management system to continuously monitor the health of each removable battery module. This system shall notify the user in the event that a failed or weak battery module is found.		
6	UNATTENDED SHUT DOWN		
a	The UPS, in conjunction with a network interface card, shall be capable of gracefully shutting down one or more operating systems during when the UPS is on low battery condition		
b	The UPS shall also be capable of using an RS232 port to communicate by means of serial communications to gracefully shut down one or more operating systems during a low battery situation.		

7	DISPLAY UNITS		
a	A microprocessor controlled display unit should be located in front of the ups system. The display shall consist of an alphanumeric display with backlight, an alarm LED.		
b	Data of all the input, out put & battery parameters should be available on the alphanumeric display:		
c	Event log: The display unit shall allow the user to display a time and date stamped log recent status and alarm events.		
8	REMOTE MONITORING		
a	Web Monitoring: Remote monitoring should be available		
b	RS232 Monitoring: Remote UPS monitoring shall be possible via either RS232 or contact closure signals from the UPS.		
c	Simple Network Management Protocol(SNMP): Remote UPS Monitoring with required hardware.		
d.	The UPS manufacturer should provide software to support graceful shutdown and remote monitoring		
9	ENVIRONMENTAL		
a	Operating Ambient Temperature: 0° C to 40° C		
b	Relative Humidity: 0 to 90% Non-condensing		
10	OEM ASSISTED START-UP & MAINTENANCE		
a	If a factory assisted UPS start-up is requested, OEM trained service personnel should perform the following inspections, test procedures, and on-site training:		
b	On-Site Operational Training: During the OEM assisted start-up, operational training for site personnel shall include key pad operation, LED indicators, start-up and shutdown procedures, maintenance bypass and AC disconnect operation, and alarm information.		
c	The UPS manufacturer need to have a service facility at Delhi, consisting of manufacturer trained field service personnel to perform start-up, preventive maintenance, and service of the UPS system and power equipment. The service organization shall offer 24 hours a day, 7 days a week, 365 days a year service support.		
11	STANDARDS compliance		
	A. UL 1778-Uninterruptible Power Supply Equipment		
	B. UL 891-Dead-Front Switchboards		
	C. UL 1558- Metal-Enclosed Low-Voltage Power Circuit Breaker Switchgear		
	D. UL60950-Information Technology Equipment		
	E. ISO 9001		

	F. ISO 14001		
12.	The UPS should carry two years onsite comprehensive warranty including batteries		
13	The warranty of the equipment should include regular preventive maintenance on site performing thorough checkup of equipment once a month and to support unlimited calls in the event of call logged for any problem occurring in the equipment to be attended within four hours on working hours		
14.	Additional Electrical requirements: <ul style="list-style-type: none"> a) Supply and installation of three phase sequencer(Phase Sequencer)440V50Hz suitable for 40KVA UPS-one number b) One100Amp TP MCB and Phase Sequencer-one number c) 10 Amp Single Phase MCB-Twelve Numbers 		

(R.C. Gupta)
Stores & Purchase Officer

Annexure 'B'

A. General Terms and conditions:-

1. **Submission of quotations:-** The quotations shall be submitted under Two Bid System i.e Techno-Commercial/Un Priced Bid and Price Bid addressed to the Joint Secretary(Admn.), Council of Scientific and Industrial Research, Anusandhan Bhawan, 2 Rafi Marg, New Delhi-110001. Both the envelopes should be super scribed with Un Priced Bid and Price Bid, tender number, due date and time, date and time of opening. Both the envelopes should be kept in one envelope then sealed. The Technical/ Un Priced bids will be opened first on the prescribed date and time in the presence of representatives of the vendors who wish to be present at that time. The Price Bids of the Technically qualified firms will be opened after the evaluation of technical bids. The date and time for opening the Price Bids will be intimated to the Technically qualified firms accordingly. In case, the Tender Opening date is declared a holiday, the tender would be opened on the next working day at the prescribed time.
2. **Receiving and Opening of Tenders:-**
 - 2.1 Last date and time for submission of quotation: **Upto 12th August 2008 at 3:30 P.M**
 - 2.2 Date and Time of opening of **Technical Bid**: - at **4: 00 P.M** on **12th August 2008**
 - 2.3 Prices should be F.O.R. CSIR Headquarters, Anusandhan Bhawan, 2 Rafi Marg, New Delhi-110001
 - 2.4 Any discrepancy between quoted prices in figures and that in words, if noted, will be sorted out in the following manner:-
 - (a) If there is a discrepancy between the unit price and the total price the unit price shall prevail and the total price will be corrected accordingly.
 - (b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected.
 - (c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to above.
3. **Validity of Quotation:-**
 - 3.1 The quotation must be valid for minimum 90 days from the date of opening of quotations. CSIR reserves the right to request the firms for the extension of the validity of the quotations. The vendor will be at liberty to accept or reject CSIR request.
4. **Warranty:-** Two years onsite comprehensive warranty including batteries from the date of installation and commissioning.
5. **Earnest Money Deposit:** Bid should accompany an earnest money deposit of **Rs. One Lakh Ten Thousand** in the form of a **Demand Draft or Bank Guarantee from a Scheduled Bank** as per **Annexure 'D'** provided by CSIR and drawn in favour of 'The Joint Secretary(Admin), CSIR, New Delhi' . **All tenders received without EMD would be summarily rejected.**
6. **Taxes:-** The percentage of Tax must be quoted in clear terms separately. If the taxes are not mentioned separately, it will be presumed that the rates quoted are inclusive of taxes.
7. **Delivery:** Preferably immediate. In case there is any specific schedule of delivery on the part of vendor, that should be clearly mentioned.
8. **Installation:** The installation of the UPS will be done within 15 days from the date of delivery, free of charge by the Vendor up to the satisfaction of CSIR IT Division.
9. **Technical Bid Evaluation:** The conditional Tenders will not be accepted. The Technical Bids will be opened first and analyzed for acceptability. The evaluation of the tenders will be done in a Scientific and logical manner. In case, certain details are missing in the quotation, which do not have appreciable bearing on the quoted prices, CSIR reserves the right to take/call the firms for technical discussions and clarifications along with necessary documents for the same to find out technically suitable vendor. The price bids of the technically qualified firms shall be opened after technical evaluation. The date and time of opening the price bid will be intimated to the technically qualified bidders and the same will be opened in the presence of the

representatives of the technically qualified firms who wish to be present at the time of price bid opening.

10. **Price Bid Evaluation:** The price comparison will be made among the technically qualified firms and the order will be placed on lowest quoted rates out of the technically qualified firms.
11. **Penalty:** In case of any delay in supply & installation beyond specified period, penalty of 0.25% of invoice value per day subject to the maximum 10% of the contract value would be charged for delayed period. The extension in the delivery and installation may or may not be granted as per the discretion of CSIR. In case extension of delivery/installation is granted as per the request of supplier, the penalty will not be exempted for extended period.
12. **Payment:**
- 12.1 **100% within 30 days[against submission of Performance Bank Guarantee of 10% of the order value from a scheduled Bank, in the name of JS(Admn.), valid till 02 months beyond the warranty period] after satisfactory installation, commissioning and acceptance by CSIR Headquarters. No advance payment will be made.**
- 12.2 Payment should be claimed through pre-receipted bills drawn in triplicate, original copy being signed over a revenue stamp.
- 12.3 Payment will be made through Electronic Mode.
13. **Arbitration:-** All questions and disputes relating to the terms and conditions, price etc. of this Contract shall be referred to the sole arbitration of the Director General, Council of Scientific and Industrial Research, New Delhi, and if he is unable or unwilling to act to the sole arbitration of some other person appointed by him willing to act as such arbitrator. The submission shall be deemed to be Submission to Arbitration under the meaning of the Arbitration and Reconciliation Act, 1996 or any satisfactory modification of reenactment thereof for the time being in force, conclusive and binding on all parties of the Contract. The contract shall be governed in accordance with the Indian Laws and the venue for arbitration shall be the place from where the contract is finalized.

B. Technical Terms and conditions:-

1. The item is to be supplied by OEM or its authorized partners for supply, service and support(Letter to be enclosed).
2. The supplier should submit letter from customer having minimum three similar installations.(Letter to be enclosed).
3. Quoted Item should carry two years onsite comprehensive warranty including Batteries.
4. The quote should include provision for Comprehensive Annual Maintenance Contract for the complete Equipment where the Applicable charges be provided for the consumable parts used in the equipment which will be paid as per actual after completion of warranty.
5. The warranty and CAMC should have regular monthly visit by supplier for preventive maintenance and support for unlimited call incase of equipment failure.
6. All calls logged during working hours should be attended within four hours.
7. The quote is to be submitted in two bid system where the technical and financial bids are to be in separate envelopes.

(R.C. Gupta)
Stores & Purchase Officer

PROFORMA FOR QUOTING FINANCIAL BID

S.no	Detailed Specification	Unit	Price Quote in Rupees
1.	40 KVA UPS(N+1*) Hot Swappable Modular Rack Mount UPS with expandability Option(* where N is not less than 18 KW and N+1 is equal to 40KW or better) with two years onsite comprehensive warranty including batteries	One	
2.	Installation and commissioning(one time)	One	
3.	Comprehensive Annual Maintenance charges per year basis for the complete equipment	Per year basis	
4.	Charges applicable for Consumable items used in the UPS during CAMC a) b) c)	As per actual	
5.	Additional Electrical requirements: a) Supply and installation of three Phase sequencer(Phase Sequencer) 440V50Hz suitable for 40 KVA UPS- one number b) One 100 Amp TP MCB and Phase Sequencer- one number c) 10 Amp Single Phase MCB-Twelve numbers.	One set	

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BID SECURITY FORM

Whereas.....¹ (*hereinafter called "the Bidder"*) has submitted its bid dated.....(*date of submission of bid*) for the supply of(*name and/or description of the goods*) (hereinafter called "the Bid").

KNOW ALL PEOPLE by these presents that WE.....(*name of bank*) of(name of country), having our registered office at(*address of bank*) (hereinafter called "the Bank"), are bound unto(*name of Purchaser*) (hereinafter called "the Purchaser") in the sum of for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this..... day of..... 20.....

THE CONDITIONS of this obligation are:

1. If the bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or
2. If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the period of bid validity:
 - (a) fails or refuses to execute the Contract Form if required; or
 - (b) fails or refuses to furnish the performance security, in accordance with the instructions to Bidders.

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee shall remain in force up to and including forty five (45) days after the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

.....
(Signature of the Bank)

1 *Name of Bidder*

