



PRASAR BHARATI
(INDIA'S PUBLIC SERVICE BROADCASTER)
O/o ADDITIONAL DIRECTOR GENERAL (E) (WZ)
ALL INDIA RADIO & DOORDARSHAN
3RD FLOOR, A.O.A. BLDG, DOORDARSHAN COMPLEX,
P.B. ROAD, WORLI, MUMBAI-30.



ADG(E)(WZ)/AIR-P/40 KVA UPS, Ratlam/11TR/ 2020-21

Dated. 25/05/2020

E – Tender Enquiry

On behalf of the Prasar Bharati (India's Public service Broadcaster), Digitally signed **E-tenders** are invited in the prescribed Bid Proforma under **two bid system for SITC of 40 KVA True on line UPS as per Annexure I (AIR specifications)**. The details of tender are given below:

1. Tender No. : **ADG (E) (WZ)/AIR PROJECT/ E-TENDER/40 KVA UPS/2020-21/1**
2. Supply/ Name of the work: Supply, Installation, Testing & Commissioning of 3 Phase, 4 wire 50 Hz, 40 kVA TRUE ON LINE UPS along with Battery Bank and Isolation Transformer at All India Radio, Ratlam.
3. Delivery Period : **Three Months from the placement of supply order.**
4. Estimated Cost : ₹.8,85,000/- (Eight lakh eighty five thousand only)
5. Earnest Money Deposit : ₹.17,700/- (Seventeen thousand seven hundred only)
6. Bid Validity up to : **180 (One Hundred and eighty Days) from the date of opening of Financial Bid.**
7. Security Deposit : Required as per (General Terms & Conditions)
 - i) Amount : 5% of the order value in the form of Demand Draft / Bank Guarantee / FDR
 - ii) Validity : 60 (sixty) days beyond the date of expiry of Warranty / Guarantee
8. Correspondence : The Addl. Director General(E)(WZ),
(Kind attn. Sanjay Bodele DE)
All India Radio & Doordarshan,
AIR Project Section,
3rd Floor, A.O.A. Bldg, Doordarshan complex,
P.B. Road, Worli, Mumbai-30.
9. Paying Authority : The Addl. Director General(E)(WZ),
All India Radio & Doordarshan,
3rd Floor, A.O.A. Bldg, Doordarshan complex,

P.B. Road, Worli, Mumbai-30.

10. Tender Opening Date : **24/06/2020 Time 1500 hrs**
11. Place of Delivery : Dy. Director (E)/Installation Officer,
(Kind Attn: P.D. Koshta, AE),
All India Radio,
Near Poddar School, Dilip Nagar, Sala Khedi,
Ratlam Jhabua Road, Ratlam-457001(M.P).

12. Important Instructions:

The tender will be governed by the “Instructions to the Bidder”. “General Terms & Conditions” and “Technical Specifications”.

Two Bid System shall be followed for this tender. Tenderers should take due care to submit tenders in accordance with requirement as specified in **“Instructions to Bidders”**.

The Technical & Commercial Bid should be submitted online. The tenderer while submitting their bid, must adhere to the following instructions of Central Vigilance Commission, otherwise their offer is likely to be ignored.

- a) One Agent / Dealer / Supplier shall not represent two manufacturers or quote on their behalf in a particular tender i.e. one bidder shall quote one type of equipment in a particular tender.
- b) Tender documents submitted by the tenderer shall be serially page numbered.
- c) Tenderers should take due care while uploading the Tenders.

1. INSTRUCTIONS TO BIDDERS

A. Important Note:-

- a. Tender documents, Bid forms, general instructions to bidders and other details including amendments/changes can be viewed/downloaded free of cost from websites;
 - <https://prasarbharati.eproc.in>
 - <https://eprocure.gov.in/epublish/app>,
 - <https://prasarbharati.gov.in>
- b. Brief instructions/guidelines for submitting quotation on e-tendering website/e-portal viz. <https://prasarbharati.eproc.in> are given in Annexure II on page 28-33of this document.
- c. Both Technical Bid and Price Bid will be submitted concurrently duly digitally signed in the website <https://prasarbharati.eproc.in>.
- d. **The tenders will be received online up to 14:00 hrs on 24.06.2020 and will be opened at 15:00 hrs on the same day.** The Price bid opening will be notified after recommendation of technical committee.

Price **Bid** will be opened after evaluation of technical bids. Price bids of only technically eligible Bidders will be opened. The opening date of financial bid will be decided later on and same will be informed to eligible tenderers in advance.
- e. No claim shall be entertained on account of disruption of internet service being used by bidders. Bidders are advised to upload their bids well in advance to avoid last minute technical snags.
- f. All documents/papers uploaded/submitted by the bidder must be legible.

- g. To participate in e-bid, bidders shall be charged e-tendering processing charges @ ₹. 475/- + 18% GST only.
- h. Bidders shall ensure to quote rate of each item. If any cell is left blank and no rate is quoted by the bidders, the rate of such item shall be treated as "0" (zero).
- i. Correspondence:
Our telephone Fax / Email address is:
Mobile 9653642743
- Email ID- mumbai.cewz@gmail.com; ddgairprojectwz@gmail.com
 - All correspondence from tenderer / contractor shall be made to the Purchase Authority (by name), who has issued this tender.
- All correspondence from tenderer / contractor shall be made as per correspondence address
- j. Lowest tender will be decided on the basis of the total cost of price bid.

B. LIST OF MANDATORY DOCUMENTS (to be scanned and uploaded with tender)

- a. Copy of Tender fee, copy of EMD/NSIC/MSME certificate in case of claim of exemption of EMD.
- b. Copy of GST Registration certificates/No as applicable.
- c. Copy of PAN card.
- d. Copy of audited report/IT return for the last 03 years.
- e. Annexure E, F, G, H, I and Annexure J on firm's letter head.
- f. Annexure D, K, L & M.
- g. HSN/SAC code for supply /works item.
- h. Proof of experience. Clause **26** of page no. **9**
- i. Tender document and specifications duly signed on all pages.
- j. Undertaking for submission of physical EMD.

All the above documents duly signed are to be submitted without (Technical & price bid) by speed post/courier/by hand, before technical bid opening date of the tender.

The bids not complied with the above shall be summarily rejected.

2. GENERAL TERMS & CONDITIONS

1. **The prices given should be firm and as under:**
 - a) The Prices quoted shall remain fixed during the entire period of supply/contract and shall not be subject to variation on any account. A bid submitted with an adjustable price quotation is likely to be treated as non-responsive and rejected.
 - b) The 'Unit' price should be for the unit as indicated in the tender enquiry.
 - c) Prices quoted should be for delivery at given place in India and Inclusive of charges as packing customs, etc, wherever applicable.
 - d) **The quotation should specifically mention rates for specified Supply/works & Taxes if any, separately.**
 - e) **Prices including grand total are to be written in figure as well as in words.**
2. In case of Quotation of F. O. R Station of dispatch basis, the purchaser will not pay separately transit insurance and the supplier will be responsible until the stores arrive in good condition at the destination. Tender/quotation in which transit

insurance has been specified as an additional item of expenditure is liable to be ignored.

3. The tender shall consist of namely:

A. EMD: Earnest Money amounting to ₹. 17700/- (₹ Seventeen thousand seven hundred only) in the form of FDR/Demand Draft/Bank guarantee of any Nationalized Bank/Commercial Bank drawn in favour of Prasar Bharati, CE(WZ), AIR & DD, Mumbai should accompany the tender. EMD exemption is applicable for those who are registered with the central purchase organization, National small industries corporation (NSIC)/MSME or the Concerned Ministry or Department (MIB/DG:AIR/DG:DD). Bidders should upload valid NSIC/MSME Certificate of adequate monetary limit for the tendered stores/services.

Registration of firms with National Small Industries Corporation (NSIC) under Single Point Registration System (SPRS) for exemption of EMD. Copy of NSIC Registration certificate to be enclosed. Registration of firms Micro and Small and Medium Enterprises (MSME)* or registered with National Small Industries Corporation (NSIC) under Single Point Registration System (SPRS) or registered with the Central Purchase Organisation or the concerned Ministry or Department or any other body specified by Ministry of Micro, Small and Medium Enterprises (MSME) for exemption of EMD – copy of Registration certificate to be enclosed.

All the MSME Vendors / Bidders participating in the tender shall declare their Udyog Aadhar Memorandum (UAM) number on CPPP. It is mandatory from 01.04.2018. The bidders who fail to submit UAM Number shall not be able to avail the benefits available to MSMEs contained in public procurement policy for MSMEs Order, 2012 issued by MSME.

The Public Procurement Policy is meant for procurement of only goods produced and services rendered by MSMEs. However, Traders are excluded from the purview of public procurement Policy. (Refer FAQ No.18 in the OM F.No.22 (1) / 2012 – MA dated 24th October, 2016 of The Development Commissioner, MSME).

FDR/ Demand draft of EMD shall be scanned and uploaded to e-tendering website within the period of bid submission.

Tender EMD deposit shall be placed in a single sealed envelope superscribed with tender reference no and date of opening and submitted so as to reach The Addl. Director General(E)(WZ), All India Radio & Doordarshan, AIR Project Section, 3RD Floor, A.O.A. Building, Doordarshan complex, P.B. Road, Worli, Mumbai-30 before the scheduled time on the prescribed tender opening date. EMD received late shall be summarily rejected.

The following undertaking in this regard shall also be uploaded by the intending bidders:-

“The Physical EMD shall be deposited by me/us with the Additional Director General (E)(WZ) All India Radio & Doordarshan Mumbai calling the tender before the scheduled time on the prescribed tender opening date otherwise department may reject the tender and also take action to withdraw my/our enlistment.”

The Earnest Money deposited by the tenderer shall be forfeited by this Organization in the following events:

- (a) If tender is withdrawn during the validity period or any extension thereof.
- (b) If tender is varied or modified in a manner not acceptable to this Organization during the validity period or any extension of the validity duly agreed by the bidder.
- (c) If a tenderer, whose tender has been accepted, fails to furnish Security Deposit within 2 weeks from the issue of the acceptance offer of the tender, the offer is likely to be cancelled.

B. Make, type, literature and specifications of the stores offered should be uploaded.

C. The bidders are required to fill up the Annexure D, E, F, G, H, I, J, K, L and M, sign it and scanned copies of the same are to be uploaded.

D. Interested contractor who wishes to participate in the bid has also to make following payments within the period of bid submission:

- (i) E-Tender Processing Fee @ ₹. 475/-+18% GST only shall be payable to M/s **C1 India Pvt. Ltd** through their e-gateway by credit/debit card, internet banking or RGTS/NEFT facility.

Copy of Enlistment Order and certificate of work experience and other documents as specified shall be scanned and uploaded to the e-Tendering website within the period of bid submission. **Certified copy of all the scanned and uploaded documents as specified shall have to be submitted by the bidders along with physical EMD physically in the office of tender opening authority before schedule time & date of technical bid opening of tender.**

The bidders will also download the tender documents, number each page sign every page having understood it and upload scanned copy. One such hard copy including annexures (D TO M) duly filled in and signed along with other enclosures is to be submitted to the undersigned before the opening of technical bid.

Online bid documents submitted by intending bidders shall be opened only of those bidders, **who has deposited e-Tender Processing Fee with M/s C1 India Pvt. Ltd and Earnest Money Deposit and other documents scanned and uploaded are found in order.**

The bid submitted shall become invalid and e-Tender processing fee shall not be refunded if:

- (i) The bidder is found ineligible.
- (ii) The bidder does not upload all the documents (including GST registration) as stipulated in the bid document **including the undertaking about deposition of physical EMD of the scanned copy of EMD uploaded.**

- (iii) **If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the tenderer in the office of tender opening authority.**

Tenderer should quote for all the required items partial tenders will be rejected.

4. **SECURITY DEPOSIT:** The Successful bidder shall furnish the Security deposit within 15 days from the date of issue e-mail/letter of acceptance, before placement of order, at the rate of **5 % of the order value, failing which the EMD will be forfeited automatically, to Prasar Bharati without any notice and the offers likely to be cancelled.** The security deposit shall be furnished in the form of demand Draft/Bank Guarantee/FDR from any nationalized/commercial bank drawn in favour of **Prasar Bharati, CE (WZ), AIR & DD, Mumbai.** The security deposit will be returned in full on completion of Guarantee/Warranty Period.

5. TAXES:

- a. As per Govt of India's decision, Goods and services Tax is introduced w. e. f. 1.07.2017. Hence taxes will be applicable as per provisions, Rules and regulations of Goods and Services Tax Act.
- b. In case of any change in Government Regulations regarding taxation, taxes will be applicable at actual on the date of billing.
- c. **As per Govt. of India's circulars regarding payment of GST (IGST/CGST & SGST) following reverse charge Mechanism, GST No is mandatory to be quoted in quotation / Tender/Bills/Invoices without which tender is liable for rejection. The amount of GST should be shown separately in their quotation/invoices.**
- d. GST leviable and intended to be claimed from the purchaser should be distinctly shown along with prices quoted. Where this is not done no claim for GST Will be admitted at any later stage and on any ground whatsoever.

6. Printed terms and conditions uploaded/submitted by tendering firm will not be considered as forming part of their tender.

7. ACCEPTANCE OF ORDER

- a. Within fifteen (15) days from date of mailing of order, SUPPLIER/CONTRACTOR shall confirm acceptance of the order in its entirety.
- b. The ORDER is accepted unconditionally by SUPPLIER/CONTRACTOR by returning to this Organization duly signed copy of the ORDER within 15 days.
- c. When Suppliers/Contractors has accepted the order with all its terms and conditions, tenderer's bid with general sales conditions and all his previous correspondences are considered superseded and void.
- d. Should Suppliers/Contractors not respect the time limit for the Confirmation of the order or in case Suppliers/Contractors cannot accept the ORDER, this Office reserves the right to cancel in writing without prejudice to other terms, the entire ORDER or part of it, without notice. Under these circumstances the earnest money given by the supplier/contractor will be forfeited in full.

8. MODIFICATION IN ORDER

- a. All modifications leading to changes in the order with respect to technical and /or commercial aspects, including terms of delivery, shall be considered valid only when accepted in writing by this Organization by issuing amendment to the ORDER.

- b. This Organization shall not be bound by any printed conditions, provision in the SUPPLIER BID, forms of acknowledgement of ORDER, invoice, packing list and other document, which purport to impose any condition at variance with or supplement to ORDER.
9. The contractor shall make his/her own arrangement for storage of all equipments and Materials bought to site from time to time and their safe custody at site till they are taken over by the indenter /his representative. The contractor shall make his own arrangement for providing accommodation for his workmen at site.
10. The contractor shall make his/her own arrangement for procuring labour, skilled and unskilled. He should confirm to all local government laws and regulations covering labour and their employment.
11. The contractor and his employees shall comply with the regulation in force for controlled entry into premises where work is being carried out.
12. **Contractor liability for damage caused during installation work and imperfection noticed:** If the contractor or his/her workmen or servants shall break, deface, injure or destroy any part of the building in which they may be working or building road kerb, fence, enclosure, water pipe, cable, drain, electric, or telephone posts or wires, trees, grass or grasslands or any Technical Equipment in the premises on which the work or any part of it is being executed, or if any defect shrinkage or other faults appear in the work ,the Contractor shall make good at his /her own expense, or default, the indenter may get the same rectified and deduct the expense from any amount that may be than due or at any time thereafter may become due to the contractor.
13. The contractor shall indemnify and hold harmless the purchaser against all claims in respect of injury to any person howsoever arising during the execution of the work contract/SITC. The contractor shall discharge his entire obligation under the Indian Workmen Compensation Act in as far as it affects workmen in his employment.
14. **GUARANTEE/WARRANTY PERIOD:** The equipment/work shall be guaranteed against any manufacturing defects for a period of **Three years** from the date of completion of SITC. Any parts including batteries failing during the guarantee period of **Three years** shall be repaired /replaced free of charge by the supplier at the sites.
15. **COMPLETION PERIOD:** The entire work/Supply at All India Radio site shall be completed within **Three Months** from the date of placement of order. **The contract will be treated as terminated automatically unless otherwise extended in writing.**
16. **TERMS OF PAYMENT:**
- a. **80 % of the contract price for the equipments/materials inclusive of goods service tax shall be paid on initial inspection and delivery of equipments at site in good condition.** The consignee will complete necessary formalities at his end and verify the bill and submit to the paying authority along with measurement book for making payment.
- b. **20 % of the contract price for equipments and 100 % of installation charges on satisfactory completion of installation, testing, commissioning**

and handing over. The consignee will complete necessary formalities at his end and verify the bill and submit to the paying authority along with measurement book for making payment.

Further the contractor/supplier/firm should submit all the bank details such as;

- a. Name of the Bank
- b. Branch
- c. Account Number
- d. IFSC code
- e. MICR Code

along with their bill for online payment (if possible, a Photostat copy of the cheque leaf may be enclosed).

- 17.** The quotations submitted shall remain open for acceptance for a period of **180 (one hundred eighty) days** from the date of opening of the Tender (Price bid). If any Tenderer/suppliers withdraws his Tender/Quotation before the said period or makes any modification in the Terms & Conditions of the Tender/Quotation which are not acceptable to the Office, then the Office shall, without prejudice to any other right or remedy, be at the liberty to forfeit the Earnest Money as aforesaid.
- 18.** Both PAN- **permanent income tax account number** and income tax circle & **TIN-Tax identification number** and the tax circle should be indicated **in the quotation in addition to GST number.**
- 19. After Sales Service and Training:** The tenderer must furnish complete details of after sales service arrangement including training to be provided in respect of the equipment. After sales service arrangements should include details of infrastructure facilities available in the country. **The training should be made available free of cost at sites.** Failure to give this information, will lead to automatic rejection of the offer, without any reference to the Bidder.
- 20. Unsolicited Post Tender Modification:** In case certain clarifications are sought by this Organization after opening of tenders, then the reply of the Bidder should be restricted to the clarifications sought. Any Bidder who modifies his Bid (including a modification, which has the effect of altering the value of his offer) after the closing date without specific reference by this Organization shall render the bid liable to be ignored and rejected without notice and without further reference to the Bidder. Canvassing in any form by the Bidders shall also render the bid liable to be ignored and rejected without notice and without further reference to the Bidder.
- 21. Clarification in respect of incomplete offer:** This Organization has to finalize its purchase within a limited time schedule. Therefore, it may not be feasible in all cases for this Organization to seek clarification in respect of incomplete offers. Prospective Bidders are advised to ensure that their bids are complete in all respects and conform to our terms and conditions and Bid Evaluation Criteria of the tender. Bids not complying with this Office's requirements may be rejected without seeking any clarifications.
- 22. Replacement/Rectification:** In the event the stores supplied are found to be defective, the supplier will have to take back the defective materials at his own cost and replace the defective Stores free of charge without loss of time. The supplier will not be entitled to dispose of the Store Equipment / Material given for replacement / rectification without the prior permission of this Organization. All

charges concerned with the rectification including freight charges will be borne by the supplier.

- 23. RIGHT OF ACCEPTANCE:** The undersigned reserves the right to reject the lowest tender or all the tenders without assigning any reasons whatsoever. Further the undersigned reserves himself the right to increase or decrease up to 50% of the quantity of goods and service specified in the schedule of the requirement without any change in the unit price of the order quantities or other terms and conditions at the time of award of contract. This Office also reserves to itself the right to accept any tender in part or split the order between two or more bidders. All Quotations/Tenders in which any of the prescribed conditions are not fulfilled or are incomplete in any respect are liable to be rejected. The competent authority on behalf of Prasar Bharati reserve himself the right of accepting the whole or any part of the Tender and the tenderer shall be bound to perform the same at the rate quoted.
- 24.** Canvassing whether directly or indirectly, in connection with Tender/quotation is strictly prohibited and the Tender /quotation submitted by the contractors/suppliers who resort to canvassing will be liable to rejection.
- 25. LANGUAGE/UNITS:** All information supplied by the Tenderer & all markings, notes, designation on the drawings & associated write-ups shall be in “English/Hindi language” only. All dimensions, units on drawings, all reference to weights, measures & quantities shall be in SI.
- 26. Eligibility Criteria:** Bids should be from actual manufacturer. Bid from sole selling agents/authorised distributors/authorised dealers/authorised contractors can also be considered provided such bids are accompanied with necessary supporting documents /authority letter from concerned actual manufacturer who authorised them to market their products, provided further, such an authority letter is valid at the time of bidding. The supplier/ contractor shall ensure that the required warranty cover is provided by the original manufacturer of the product.
- The tenderer should also have sufficient experience and shall submit the satisfactory supply certificates of at least three similar items/equipments, each of value not less than 40% of the estimated cost of the Tender, or two similar items/equipments, each of value not less than 60% of the estimated cost, or one similar items/equipments of value not less than 80% of the estimated cost, all amounts rounded off to the convenient full figure, in the last seven years ending on the last day of the month previous to the one in which the Tenders are invited. The tender without qualification certificate will be rejected on date of opening without further intimation.
- 27.** The contractor shall arrange to dispatch the good duly insured direct to the consignee under prior intimation for delivery at site by whichever mode of transport he may choose, to ensure safe delivery of goods at site. Unloading shall be done at site at the contractor’s expense. The consignee will provide only storage space. The contractor will provide his own security like locking etc. and store the material at his own risk.
- 28. PRE-DESPATCH INSPECTION:** The stores/ material/equipment will be inspected by the indenter or his authorised representative at manufacturer’s work before dispatch as specified in specification and in accordance with standard specified in the tender.

- 29. INSURANCE:** The contractor shall arrange for the insurance covering the risk during transit, storage and installation till commissioning. The contractor shall take insurance for his men while working at AIR site against any accident, death, etc. Similarly equipments, instruments, tools etc. belonging to the contractor shall be insured against damage, loss, theft etc. All the charges for such insurance shall be borne by the contractor.
- 30. ADDITIONAL QUANTITIES:** The purchaser reserves the right to place order for additional quantity up to 100% of the ordered quantity at the same rates and terms and condition during the currency of the contract.
- 31. PENALTY FOR DELAY:** If the contractor is unable to complete the supply ,installation ,testing and commissioning within the stipulated time limit the purchaser may at his option allow such additional time as may be considered justified with /without penalty and without altering terms and conditions of the order In the event of failure of the contractor to complete the supply, installation, testing and commissioning within the stipulated time or the extended time, the purchaser has the right to impose penalty of 0.5 % per week or part thereof of the contract price. The contractor's liability for delay, however, shall not exceed **5 % of the total contract price.**
- 32. ENFORCEMENT OF LABOUR LAWS:** While engaging labour for carrying out obligation under the contract, the contractor shall satisfy the condition laid down under contract labour (Regulation and Audition) Act 1970 and (Central) Rule 1971 as amended from time to time and observe all formalities required as per the said act /Rule The supplier shall also observe the provision under minimum wages act 1948 (central Rule 1950 amended from time to time while engaging labour.
- 33. Force Majeure:**
- a. If any time during the continuance of the contract the performance in whole or in part by the contractor shall be prevented or delayed by reason of any war, hostility acts of the public enemy, civil commotion, sabotage, fire, floods, explosions, epidemics, Quarantine restriction, strikes, lock-outs or acts of god,herein after refer to as events and provided notice of happenings of any such eventuality is given by the contractor within 21 days from the date of occurrence thereof, the purchaser shall by reason of such event, neither be entitle to cancel this order not shall have any claim for damages against the contractor in respect of such non-performance or delay in performance and delivery shall be resumed as soon as practicable after such events have come to an end or ceased to exist.
 - b. Provided further that if the performance in whole or part or any obligation under this order is prevented or delayed by reasons of any such event for a period exceeding 180 days, the purchaser and the contractor shall meet to find a neutral agreement to any effect resulting the reform or the purchaser may at his option cancel order provided also if the order is cancelled under this clause the purchaser shall be at liberty to take over from the contractor at order prices all unused un-damaged and acceptable material bought out components and stores in course of manufacture in the possession of the supplier at the time of such cancellation or such portion thereof as the purchaser may deem fit accepting such material, bought out components and stores as the supplier may with the concurrence of the purchaser elect to retain.

31. CANCELLATION:

The Purchaser reserves the right to cancel the order in the event of non-performance/delay in execution of the work or unsatisfactory performance by the contractor and recover payment already made if any along with losses/damages incurred.

32. FAILURE AND TERMINATION CLAUSE

Time and date of delivery shall be the essence of the contract. If the contractor/supplier fails to deliver the stores/execute SITC/SETC, or any installment thereof within the period fixed for such delivery in the schedule or at any time repudiates the contract before the expiry of such Periods, the purchaser may without prejudice to any other right or remedy, available to him recover demurrages for breach of the contract:.

- a. Recover from the Supplier/contractor as agreed, liquidated demurrages including administrative expenses and not by way of penalty a sum equivalent to 0.5% per week up to maximum limit of **5 %** of the contract value for such delay or part thereof (this is an agreed , genuine pre-estimate of demurrages duly agreed by the parties) which the supplier /contractor has failed to deliver thereof is accepted after expiry of the aforesaid period, provided that the total demurrages so claimed shall not exceed **5 %** of the contract price of the stores/ SITC/SETC After full period of extension (Maximum 2 months after the normal delivery period),the contract will be automatically treated as terminated, unless otherwise extended in writing and the security deposit will be forfeited.
- b. Purchase or authorize the purchase elsewhere on the account and the risk of the contractor /supplier of the stores not so delivered/SITC/SETC not carried out or other of a similar description (where stores exactly complying with the particulars are not in the opinion of purchaser which shall be final readily procurable)by serving prior notice to the contractor /supplier without cancelling the contract in respect of the installment not yet due for delivery or,
- c. Cancel the contract or a portion thereof by serving prior notice to the Contractor /supplier and if so desired purchase or authorize the purchase of the stores not so delivered /SITC/SETC not carried out or other of a similar description (where stores not delivered /SITC/SETC not carried out exactly complying with particulars are not in the opinion of the purchaser, which shall be final readily procurable)at the risk and cost of the Contractor/supplier If the Contractor/Supplier had defaulted in the performance of the original contract, the purchaser shall have the right to ignore his tender for risk purchase even though the provisions of this clause, it shall be in the discretion of the purchaser to exercise his discretion to collect or not the security deposit from the firm on whom the contract is placed ,at the risk and expense of the defaulted firm .
- d. Where action is taken under sub-clause (b) or sub clause (c) above, the contractor shall be liable for any loss which the purchaser may sustain on that account, provided the purchaser or if there is agreement, to purchase, such agreement is made in case of failure and ion case of repudiation of contract the contractor/supplier shall not be entitled to any gain on such the entire discretion of the purchaser to serve a notice of such purchase on the contractor/supplier.

- e. It may further be noted that clause (a) above provides for recovery of liquidated demurrages on the cost of contract price of delayed supplies (whole unit) at the rate of 0.5% per week up to maximum limit of **5 %** of the contract value for such delay or part thereof. Liquidated demurrages for delay in supplies thus accrued will be recovered by the paying authority on instruction as specified in the supply order from the bill for payment of the cost of materials/works submitted by the supplier/contractor in accordance with terms of supply order on instruction from purchaser regarding liquidated demurrages amount.
- f. Notwithstanding anything stated above equipment and materials will be deemed to have been delivered /STC/SETC will be deemed to have carried out only when all its components parts are also delivered. If certain components of stores are not delivered in the time /SITC/SETC not carried out in time, the stores/SITC/SETC will be considered as delayed until such time all the parts are also delivered.

33. ARBITRATION OF CONTRACTUAL DISPUTES:

If a dispute arises out of or in connection with the contract or in respect of any defined legal relationship associated therewith or derived there from, the parties agree to submit that dispute to arbitration under ICADR Arbitration Rules 1996 The Authority to appoint the arbitrators shall be the International centre for Alternative dispute resolution.

The international center for Alternative Dispute Resolution will provide administrative service in accordance with the ICADR Arbitration Rule 1996.

- a. The number of arbitrators (s) shall be one who has legal as well as Technical Background.
 - b. The Place of arbitration proceeding shall be Mumbai only.
 - c. The language of the arbitration proceedings shall be English.
- 34.** Tenderers are requested to fill the check list as per proforma provided (Annexure M). Incomplete check list or noncompliance may result in rejection of the Tender.
- 35. GENERAL:** All the pages of the tender documents should be duly signed stamped and serially page numbered on submission failing which the tender may not be considered as qualified

Sanjay Bodele
Director (E)(AIR Project)
For Addl. Director General (E)(WZ)
Mobile No. 9653642743 Email ID-
mumbai.cewz@gmail.com
ddgairprojectwz@gmail.com

**PRASAR BHARATI
(INDIA'S PUBLIC SERVICE BROADCASTER)
DIRECTORATE GENERAL: ALL INDIA RADIO
(PLANNING & DEVELOPMENT UNIT)**

Spec. No. UPS-40 kVA/22/August/2016-D(TD/FM)

SPECIFICATIONS FOR SITC OF 40 kVA, TRUE ON-LINE, DOUBLE CONVERSION, FULLY DSP CONTROLLED TYPE UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEM (3-PHASE, 4 WIRE INPUT & 3-PHASE, 4 WIRE OUTPUT) ALONGWITH BATTERY BANK AND ISOLATION TRANSFORMER (FOR VHF FM TRANSMITTER SET UP)

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A. ESSENTIAL REQUIREMENT FOR THE TENDERERS:

- (i) The tenderer should submit Schedule of Requirements/Materials for SITC without *price in the same format as given in AIR Specification* in the technical bid, failing which the tender shall be considered incomplete and is liable to be rejected.

(ii) It is also mandatory to mention ***Make & Model of the offered equipment*** in the Schedule of Requirements/Materials of supply, failing which the tender shall be considered incomplete and is liable to be rejected.
- 2. Each statement of the technical specification has to be complied with & supported by printed technical literature, technical data sheets, schematic drawings and technical manuals, duly signed & stamped by respective Original Equipment Manufacturer (OEM) and countersigned by the tenderer to assess the full merit of the offer, failing which the tender shall be considered incomplete and is liable to be rejected.**
3. The tenderer should submit the tender offer to AIR in the format given below, Section wise & Clause wise, in respect of all the Sections of technical specifications to assess the full merit of the offer, failing which the tender shall be considered incomplete and is liable to be rejected.

S. No. of AIR Specifications (Section wise & Clause wise) (1)	Details of AIR Specifications (Part/ Section wise & Clause wise) (2)	Compliance (Yes/No) (3)	The page no. of the tender offer, where the information/ supporting document is available. (4)	Remarks (5)
Section-1.0 Clause wise				
Section-2.0 Clause wise				
Section-3.0 Clause wise				
Section-4.0 (A) & (B) Clause wise				

4. The tenderer should also quote the rate/cost of individual items in the tender offer while submitting the offer in respect of spares **(OPTIONAL)** in commercial bid.
5. The complete Technical specifications (Section wise & Clause wise) compliance statement along with Schedule of Requirements/Materials (un-priced) must be signed & stamped on each page by the respective Original Equipment Manufacturer and countersigned by the tenderer in the tender document including the clarifications, if any, asked by All India Radio, failing which the tender shall be considered incomplete and is liable to be rejected.
The manufacturer & tenderer should also mention their names in CAPITAL LETTERS & designation of the signatories, full address with pin code, phone number, fax number, e-mail addresses etc.
6. All the volumes of the entire technical bid must be page numbered.
7. The authorization and guarantee must be given by respective Original Equipment Manufacturer on their letterhead pad duly signed & stamped on each page. In case tender offer is from other than the Manufacturer, the tenderer must also give guarantee on their letterhead pad, duly signed & stamped on each page, failing which the tender shall be considered incomplete and is liable to be rejected.
8. **Any change in the AIR technical specifications format or language or in parameters or of any other nature including the deletion of technical specifications clause, words, lines in the technical specifications compliance statement by the Original Equipment Manufacturer / tenderer will not be acceptable to AIR and the tender is liable to be rejected.**
9. ***Optional items will not be considered for ranking purpose.***

**B. ESSENTIAL ELIGIBILITY CRITERIA FOR TENDERERS:
As per the terms of conditions of the Tender.**

SECTION-1.0

GENERAL SPECIFICATIONS:

Note : Please refer tender documents for general terms and conditions of contract for SITC works including all the commercial aspects like Packing and Packing List, Insurance and Marine Risk etc., Payment terms, Penalty/Compensation for Delay, Damages and Liabilities, Time Period and Extension for Delay, Foreclosure of Contract due to Abandonment or Reduction in Scope of Supply, Cancellation of Contract in Full or Part, Recovery of Security Deposit, Performance Guarantee, Unsatisfactory Workmanship, Damages Incurred During Transit, Tenderer Liable for Damages, Defects, Recovery of Compensation, Ensuring Payment and Amenities, Tenderer to Indemnify Government against Patent Rights, Release of Security Deposit, Safety Code, insurance from manufacturer's works/factory to respective site etc **i.e. in totality.**

1. SCOPE:

The specifications are for the SITC of 40 kVA, True on-line, double conversion (defined as VFI in the IEC 62040-3 UPS Specifications), fully DSP controlled type Uninterruptible Power Supply (UPS) (3-Phase, 4 Wire input, 3-Phase, 4 Wire output) along with Battery Bank and Isolation Transformer for use in AIR FM transmitters (power factor better than 0.8). The UPS system has to operate in conjunction with the existing Building Electrical System and Diesel Generator (62.5 kVA) to provide power conditioning, back-up power protection, and power distribution for the critical loads.

2. GENERAL:

The UPS should be reliable and stable in operation under Indian tropical conditions. In India, climate may be extremely humid and dusty besides varying from very cold to very hot. It should have a front panel LCD display to show various parameters of the system to ease the monitoring.

The UPS system shall be capable of running in stand-alone Mode as per the attached configurations shown in Fig. 1. UPS system is to be supplied with 15 minutes back up time at full rated capacity.

3. INSPECTION:

- a) All the equipment to be supplied against the supply order for this tender shall be subjected to inspection at manufacturer's facility by AIR.
- b) The installation shall be subjected to inspection at site by AIR. The firm shall submit all the drawings, wiring/ connection diagrams etc. at the time of inspection. The Manufacturer shall provide all technical equipment required for inspecting the system to the inspector.
- c) The complete Acceptance Test Procedure/Protocol (ATP) will be prepared by the OEM and submitted to concerned Zonal office for approval **within one month** of issue of Acceptance of Tender. ATP will also indicate full details of setup for measuring/testing equipments to be deployed during the performance measurements/inspection. The **approved ATP** shall form the basis for performance measurements/inspection to be carried out.

4. LANGUAGE/UNITS:

All information supplied by the tenderer and all markings, notes, designation on the drawings and associated write-ups including Instruction Manuals shall be in **"English language" only**. All dimensions and units on drawings and all references to weights, measures and quantities shall be in **SI units**.

5. INFORMATION TO BE SUPPLIED WITH THE TENDER:

- (i) The complete technical specifications (Section wise & Clause wise) compliance statement alongwith Schedule of Requirements/Materials (un-priced), duly signed & stamped on each page by the respective Original Equipment Manufacturer and countersigned by the tenderer as per the format given above in clause A (3).
- (ii) Complete printed technical literature, technical data sheets, schematic drawings and technical manuals of the offered equipments, duly signed & stamped by the respective Original Equipment Manufacturer and countersigned by the tenderer in support of compliance statement.
- (iii) Schedule of Requirements/Materials (un-priced) for SITC of UPS & accessories in the same format as given in AIR Specification. The tenderer must quote all items.
- (iv) Descriptive information and complete details of each equipment offered shall be given by the tenderer.
- (v) Country of Origin, Make, Type & Model of all the Equipments/items offered should be mentioned including the name & address of their vendors.
- (vi) A copy of the Technical Manual must be enclosed with technical bid for assessing the Equipment offered. The Technical Manual must include at least the details given below:

A. Installation Manual: A detailed installation manual for the installation of UPS System should contain at least the following details:

- a)** A floor equipment layout plan with dimensions in meters for installing the UPS System in the hall. All the dimensions of hall with ceiling height, and equipment to be installed should be provided.
- b)** Isometric view of UPS System and allied equipment diagrams with dimensions in meters are to be provided.
- c)** All installation drawings with dimensions are to be provided.
- d)** All mechanical assembly drawings of the UPS System with dimensions are to be provided.
- e)** All the views, i.e. Front, rear, top and side, of the UPS System with dimensions are to be provided.
- f)** A detailed diagram showing the airflow Inlet to the UPS and the out let route should be provided.
- g)** All unpacking/ installing details of the UPS are to be provided.
- h)** A detailed writes up in English regarding installing the UPS System along with its associated equipment items should be provided.
- i)** The procedure of alignment and adjustment of various assemblies, sub-assemblies of UPS System to be described in details in the installation manual.
- j)** The procedural details of alignment of all stages, control circuits and input/output stage of the UPS System should be described with practical examples in this manual.
- k)** All do's and don'ts which are essential for safe installation of the UPS System should be described in the installation manual.
- l)** A detailed description with all relevant circuit diagrams for the control circuit of the UPS should be provided.

- m) The detailed procedure and possibilities of By-passing UPS unit and control circuit should be described with diagrams in this manual.
- A. Operation and Maintenance Manual:** A detailed operation and maintenance manual with all drawings, circuit diagrams, of all PCB's assemblies, subassemblies are to be provided.
 - a) All details regarding putting "ON" with the sequence of operation of the UPS are to be provided in the manual.
 - b) The details of all electrical/electronic circuits in various stages of the UPS used along with their write-ups are to be provided in this manual.
 - c) All precautions and detailed instructions regarding operation of the UPS System should be provided in this manual.
 - d) The detailed description with examples for taking various measurements with the measuring equipment along with the test bench details for measuring various parameters for the UPS should be provided in the manual.
 - e) The various tests and measuring equipment required and essential for the routine maintenance and calibration along with the procedure for taking such measurement calibration should be provided in the manual.
 - f) The lists of all parts/components/assemblies/subassemblies with their part numbers and with the source of supply with supplier's address etc. are to be provided in this manual.
 - g) The details of ordering specifications for all parts/components/subassemblies/PCB/units should be listed in this manual to facilitate reordering of spares as and when required during the life time of this UPS System.
 - h) The details of self-check for the UPS System and internal calibration are to be described in the manual.
 - i) The detailed procedure for trouble shooting of the UPS System preferably up to component level should be available in the manual. Various test fixtures and accessories required for the maintenance/ repair of the UPS System should be clearly described and detailed out in this manual. The systematic trouble shooting/ fault tree and flow diagram should be provided for diagnosis of the fault with its remedial measures in this manual.
 - j) The various assemblies/sub-assemblies, PCBs, Parts and Components should be clearly marked to define its functions. The schematic diagrams and references should be described in such a way so that the parts/assemblies/PCBs etc. can easily be identified from the components layout diagram provided in the manual.
 - k) All the controls, switches, knobs, interfaces and indications should be clearly marked to show their circuit designation and functions.
 - l) Accessibility for testing, replacing of components, ease of maintenance, calibration and adjustment should be the main design features of the UPS System.
 - m) The manual should have description regarding various interfaces, connectors, connecting cables and accessories required for the satisfactory function of the UPS System. All such items required should be provided by the manufacturer along with the UPS system.

6. INFORMATION TO PRECEDE DESPATCH OF EQUIPMENT:

Following information should be supplied to concerned Zonal office and each of the consignees prior to dispatch of equipment:

- a) Detailed list of equipments under dispatch.

- b) Photograph showing location of various units/subunits with item numbers marked thereon.

7. INFORMATION TO BE SUPPLIED BY THE TENDERER WITHIN ONE MONTH AFTER ISSUE OF ACCEPTANCE OF TENDER:

One set of Technical Manuals (Installation, Testing, Commissioning, Operation & Maintenance, including theory of operation and fault diagnosis, circuit diagrams) **COLOUR** printed and duly bound for UPS system including Battery Bank and Isolation Transformer along with soft copy on CD must be supplied to concerned Zonal Office.

8. INSURANCE AND MARINE RISKS ETC.

Please refer to commercial terms.

9. INFORMATION TO BE SUPPLIED ALONGWITH EQUIPMENT:

Two Sets of Technical manuals (for Installation, Testing, Commissioning, Operation & Maintenance, including theory of operation and fault diagnosis, circuit diagrams) **COLOUR** printed and duly bound for UPS system including Battery Bank and Isolation Transformer along with final performance measurements with soft copy on CD shall be supplied to concerned Zonal office and consignee.

10 GUARANTEE: The tenderer shall submit with his tender an undertaking to accept the following guarantees:

- (i) The guarantee of the Equipments/items shall be **36 months** from the date of commissioning.
- (ii) A guarantee that the equipment supplied will be in accordance with these specifications, varied only to the extent stated in his tender and agreed to in the contract.
- (iii) A guarantee to make good within 10 days at tenderer's expense, if any component which becomes defective under normal operating conditions during guarantee period.
- (iv) A guarantee to supply all components for a period of ten years from the date of acceptance of Equipments/items, at rates at which these are being supplied by him to other customers and also should match prices of original manufactures of these components prevailing at that time.
- (v) If at any stage during next 10 years, the manufacturer stops production of this model of Equipments/items, the tenderer/OEM shall intimate All India Radio in advance to enable the latter to stock the critical items.

11. MAINTENANCE SUPPORT AND SPARES:

- (a) The minimum recommended essential spares shall be quoted separately by the tenderer.
- (b) The minimum recommended essential spares may be based on predicted rate of failure. In case, the tenderer quotes the optional items as 'Set', the details of the components/items offered in the 'Set' must be spelt out clearly including their Make, Model and quantity.

12. COMPLETION OF SITC:

The project, consisting of Supply, Installation, Testing and Commissioning of the Online UPS, will have to be implemented on turnkey basis in three months time from the date of placement of order.

13. INSTALLATION AND COMMISSIONING:

The firm shall be ready to carry out the installation work at any time of a day (24 Hrs) and any day of the week (7 days) as permissible on the particular site.

Section-2.0

ESSENTIAL FEATURES:

1.	<ul style="list-style-type: none"> a) The system should be fully DSP controlled in all respects (i.e. rectifier control, inverter control, display, digital diagnostics), solid-state type, utilizing true On-Line Double Conversion technology (high frequency PWM using IGBT Rectifier & inverter section) b) The system should be capable of providing continuous high quality sinusoidal waveform power for electronic equipment loads. c) The system should conform to voltage frequency independent technology.
2.	<p>The DSP based controller should have following characteristics:</p> <ul style="list-style-type: none"> 1. Diagnostic monitoring achieved by Fast Fourier Transform (FFT) of spectrum analysis 2. Adaptive control by having the speed to monitor and control the system concurrently 3. Real time generation of smooth, near optimal reference profiles and move trajectories 4. Control power switching and inverters and generate high resolution outputs
3.	The UPS should offer low input current harmonic distortion (THDI), good regulation, excellent transient response and high stability.
4.	<ul style="list-style-type: none"> a) The system should have a monitoring panel (LCD Based) with various types of fault alarms and metering functions including: <ul style="list-style-type: none"> i. Output voltage, current & frequency. ii. Input voltage, current & frequency. iii. Bypass Voltage, Current & frequency. iv. Battery capacity, backup time left & bad battery indication. v. Temperature of System, Inverter section and Rectifier section. b) The UPS system should display both RMS value and Peak value of load current. c) The UPS system should have facility to generate aural alarm for bad Battery condition.
5.	<ul style="list-style-type: none"> a) The system should have wide input voltage and input frequency tolerance as specified in Rectifier section. b) Transient Voltage Surge Suppressor (TVSS) should be provided at the input & output of the UPS System.
6.	The system should have provision for controlling all the three phases individually, even in case of 100% unbalancing at the output with even 0% load on one phase. There should be no change in regulation in phase voltage with 100% unbalancing.
7.	The system should be capable of supplying energy to load from commercial mains without any break in case of phase reversal at the input. It should also generate aural and visual alarm in such a case.
8..	<ul style="list-style-type: none"> a) The system should have provision of protection for <ul style="list-style-type: none"> (i) Input under voltage (ii) Input Over Voltage (iii) Output Over Voltage (iv) Output Over load (v) Output short circuit

	<ul style="list-style-type: none"> (vi) Battery under Voltage (vii) Over temperature (viii) DC Over current <p>b) The system should generate aural and visual alarms for above-mentioned conditions.</p>
9.	<p>The system should have Controls as</p> <ul style="list-style-type: none"> (i) Input Circuit Breaker (ii) Bypass Circuit Breaker (iii) Maintenance Bypass Switch (iv) Inverter ON / OFF Switch (v) Alarm acknowledge switch
10	<ul style="list-style-type: none"> (a) The system should have facility to store the Logs of the events being monitored by monitoring system. (b) The UPS system should have the capability to store a minimum of last 100 events. (c) The UPS should have in-built digital fault diagnostic through stored events in UPS system.
11	<p>The system should also include an external 60 kVA Isolation Transformer alongwith the UPS to provide protection from electrical surges/noise (inherent and generated both) present in the input power supply.</p>
12	<p>The firm should specify the Nos. & type of desired batteries, which shall be part of the system to be offered. [The batteries of known & reputed world-class manufacturer only will be accepted.] The sealed maintenance free-batteries AGM-VRLA type shall only be acceptable. The detailed technical specification of batteries with their working life is also to be specified and provided with the offer.</p>
13	<ul style="list-style-type: none"> A- The battery charger should have provision of <ul style="list-style-type: none"> (i) Monitoring battery temperature and accordingly adjusting the charging level to enhance the battery life. (ii) Programmable battery charging which can be programmed to enhance battery life. B- Battery charging current should be adjustable from 10% to 80% through Microprocessor & displayed. C- For battery sizing calculation, temperature is required to be taken as 0°C.
14	<p>The system should have communication port RS-232 and should be compatible to integrate with NMS. Suitable software for monitoring & diagnostics etc. should be supplied.</p>
15.	<p>The system should be designed with scientific forced air-cooling for proper ventilation. Acoustic noise level should be kept at minimum.</p>
16	<p>The UPS system output should be isolated from the DC circuit of the UPS.</p>
17.	<p>The firm should specify the total area requirement for installation of the system including batteries. A floor layout plan should be attached.</p>
18.	<p>The system that shall be quoted against this tender should include all switchgears, cables, earthing etc. Terminals for input 3-phase, 4 Wire, power supply & output power supply should be provided.</p> <p>Power supply sub distribution in the output is not in the scope of this tender. A block-schematic diagram with all items should be provided.</p>
19.	<p>The system that shall be quoted against this tender should be capable of running</p>

	continuously round the clock, seven days a week without interruption or failure.
20.	The UPS System quoted must conform to the latest international standards of safety and EMC. The conformance to such standards (indicating standard's name & number) must be stated in compliance statement. A certificate issued to OEM by authorized international/ national agencies should be submitted along-with the declaration from OEM in this regard. In general, following standards should be met: A. Safety: IEC 62040-1 / EN 50091-1 B. Emission and Immunity: IEC 62040-2, Class A / EN 50091-2 (Class A) C. Performance: IEC 62040 -3/ EN 50091 - 3 D. CE-Marked in accordance with EEC directives 73/23 "low voltage" and 89/336 "electromagnetic compatibility"
21.	The UPS manufacturer must be ISO 9001-2000 certified company. A copy of the certificate should be enclosed with the offer.

Section-3.0

TECHNICAL SPECIFICATIONS:

A. SYSTEM	
1.	Technology: The UPS shall be designed to operate as true on-line, double conversion fully DSP controlled type UPS strictly as per the definition of IEC 62040-3 as follows:
<p>a) Normal Operation: The UPS inverter should continuously supply the critical AC load. The rectifier & charger should take power from the AC input source, convert it to suitable DC and supply to the inverter as well as charge the Batteries on Automatic Float cum Boost Mode.</p> <p>b) Upon Mains Failure: Upon failure of AC input power, the critical AC load should continue to be supplied by the inverter, which should obtain power from the battery. There shall be no interruption in power to the critical load upon failure or restoration of the AC input source (Mains/ DG).</p> <p>c) Upon Mains Restoration: Upon restoration of AC input power, the Rectifier/Charger should automatically restart walk-in and gradually take-over the supply to inverter and charging to the battery.</p> <p>d) Static Bypass: UPS Module should have inbuilt 100% rated static Bypass Line. All the loads should be transferred to the Static Bypass Line of the UPS without any break for the following conditions: i. If the UPS fails ii. If overload beyond 150% for 1 minute is faced by the UPS iii. If UPS sense over temperature (i.e. inverter exceeding 65°C simultaneously). iv. If the UPS inverter is put-off</p>	
2.	MTBF of the System: Bidder to specify and justify MTBF of the system
3.	Capacity: 40 kVA at power factor 0.8

B. RECTIFIER SECTION		
1.	(a) Technology	Fully DSP Controlled IGBT Rectifier with input filters to reduce the harmonics.
2.	Input	3-phase, 4-wire plus Ground
3.	Input Voltage	320 to 460 V (at full load)
4.	Input Frequency	47 – 53 Hz
5.	Input Power factor	> 0.96
6.	Input Current Harmonic Distortion (THDi)	≤ 4%
7.	Soft start (0-100%)	> 10 Sec
8.	DC ripple voltage	< 1%
Note: Bidder should Specify the following Parameters for quoted UPS system		
	i) Rectifier Input current (Max.)	
	ii) Max. Rectifier output current	
	iii) Rated Output current (with battery fully charged state)	
	iv) Max. Output Voltage	
C. INVERTER:		
1.	Technology	Fully DSP based IGBT/PWM Inverter
2.	Output Voltage 1. Nominal: 2. Static:	3-phase, 4-wire plus Ground 380V- 415V AC (adjustable), 50Hz 400 ± 1% V AC, 50Hz
3.	Output voltage regulation: a) 100% Balanced load b) 100% Unbalanced load c) Transient response (100% step loading) d) Recovery time to steady state (± 1%)	< ±1% ± 2% < 5% < 5 msec.
4.	Output frequency regulation a) Line Connection: b) Self-Connection:	± 1% (meeting input frequency range of 47-53 Hz.) ± 0.05%
5.	Overall Efficiency: (From I/P to O/P of the U.P.S. system)	>90% (for all loads from 50% to 100%)
6.	Output voltage Distortion: (at rated load)	< 1% linear load, < 4% non-linear load with 3:1 crest factor
7.	Audible noise level at 1 metre	60 dBA or better
8.	Overload capacity: (a) Inverter (b) Bypass Mode	Upto 125% 10 min Upto 150% 1 min Continuously upto 135% of rated current

		135% to 170% of rated current for 1 min > 170% of rated current for 2 seconds
9.	RF Suppressions:	As per BIS & EMC standard.
10.	Computer Interface:	RS 232 Interface
11.	Online Battery testing:	Required
12.	(a) Mains failure, (b) Battery Low, (c) UPS Fault	Tenderer to provide Audio/Visual alarm at remote location (maximum distance 100 meter) in addition to local.
13.	Front panel Display (Please submit the details of front panel display)	LED mimic with LCD display. The LCD should display the following: a) Input side: i) Voltage ii) Current iii) Frequency b) Output side: i) Voltage ii) Current (RMS value) & Peak value. iii) Frequency c) Intermediate DC: i) Voltage ii) Current iii) Remaining time (in minutes) d) Bypass: i) Voltage ii) Current iii) Frequency e) Alarm History

D. BATTERY BANK & BATTERY		
1.	Battery Bank Capacity	Minimum 45,000 VAh
2.	Nominal output current capacity	Minimum 65 Ah
3.	No. of Battery String	1 Set complete
4.	DC Voltage of the battery bank	Should be Minimum 480 V
5.	Type:	12 V Batteries of Sealed Maintenance Free (AGM-VRLA). (Please submit the catalogue of offered battery with its detailed specifications along with the charging & discharging characteristics and Graphs from the OEM).
6.	Backup time:	Minimum 15 minutes (at the End of Life (EOL) of Battery) for 100 % load with each UPS system
7.	Charging Voltage	Float: 13.5±0.1 V per Battery at 27°C Boost: 13.8±0.1 V per Battery at 27°C
8.	Cutoff Voltage	1.70-1.75 V per Cell (should be Selectable)
9.	Floating Voltage regulation between no load & full load.	1% or better.
10.	Codes & Standards	The supplying battery manufacturer shall be ISO 9001/14001 certified. The battery design shall be of field proven technology. The manufacturer shall have 5 years of field experience. Copy

		of Certificate for ‘AGM-VRLA Battery’ must be attached with the offer.
11.	Design	All batteries within the battery string shall be of the same manufacturer and model. The batteries shall be “Sealed Maintenance Free (AGM-VRLA)” type.
12.	Life	10 years designed life at 27°C on full float.
13.	Life Cycling Characteristics	Each battery shall be designed to provide 1200 cycles at 30% depth of discharge (DOD) at 27°C and 600 cycles at 50% DOD at 27°C.
14.	Deep Discharge	Following an equalization charge, battery shall be capable of being recharged to rated capacity from a discharge down to zero volt per cell.
15.	Recharge Rate	The battery shall be capable of a 90% recharge within 12 hours
16.	Operating Temperatures and altitude	The battery shall be capable of operating in temperatures ranging from 0°C to +40°C. Battery shall withstand hard freezing without damage to the alloy, plates, or cell container assembly. The battery shall be capable of operating at a maximum of 3000 M from ground level (AMSL).
17.	Gassing	No special ventilation shall be required under normal operating conditions. No separate “battery room” shall be required to house the battery unit.
18.	Battery Orientation	Battery bank shall have clear removable covers to facilitate visual inspections and allow ease of service.
19.	Self-Discharge	The battery shall have a maximum self-discharge rate of 0.5-1.0% per week at 27°C.
20.	Construction/ Functional Description	Pressure Relief Valve Each battery shall have a self-resealing pressure regulation valve, which operates at specified pressure. A flame arrester shall be incorporated in the valve designed to diffuse the Hydrogen gas escaped during charge and discharge. The valve shall be such that it cannot be opened without a proper tool. The valve shall be capable to withstand internal battery pressure specified by the manufacturer.
21.	Housing	The Battery system should be installed & supplied with MS Racks.
22.	Product Identification Label	Each battery shall have a self-adhering label identifying the product manufacturer, model and nominal Amp-Hour capacity. The label must be readily visible from the front of the battery. The label shall not wear out throughout the life of the battery.
23.	Capacity Testing	Each battery shall be capacity tested at the manufacturing facility as per standard battery testing procedure. For each battery, battery performance tables and curves shall be submitted with the supply. The curves may be obtained by test or by calculation.
24.	Leak Detection	Integrity of the container and post seals shall be verified in the battery manufacturing process using an automated helium leak detection process.
25.	Seismic Requirements	Batteries shall be packaged in steel modules that meet Seismic requirements when stacked horizontally.
26.	Accessories	Each battery shall be furnished with the following accessories: 1. Each battery system shall include the necessary inter-battery and inter-module connectors and terminal plates. The

		connectors shall be lead-tin plated copper and shall include stainless steel hardware. 2. One set of numerals (one numeral per battery) suitable for permanent attachment to batteries. 3. Assembly and connection drawings. 4. Each module shall include an easily removable transparent “snap on” safety shield to cover all connectors
28	Max. Battery Charging current with nominal load	To be specified (Battery charging current should be selectable from the front panel of UPS system upto maximum value)
27.	Recycling services	The manufacturer must provide worldwide recycling services to properly dispose of spent lead-acid batteries. These services must include proper instructions for the packaging, transportation, and beneficial recycling as required meeting E.P.A. guidelines (or other applicable agencies) for the safe handling of lead-acid batteries. Documentation of disposal must be provided.
29.	<p>The bidder should submit battery sizing calculation justifying following points:</p> <ul style="list-style-type: none"> No. of Batteries Capacity of Battery (Ah), (By considering the K-factor, efficiency of the system, Temperature correction factor, Ageing correction factor, etc.) DC bus voltage <p>The total required area for battery installation should also be mentioned.</p>	

E. ISOLATION TRANSFORMER		
	The Isolation Transformer should be three phase, naturally air cooled type, housed in one steel cubical provided with cast iron wheels at bottom and should have hooks for lifting the unit. The cubical enclosing the Isolation Transformer should have sufficient openings (doors and removable covers) for ease of operation and maintenance of the system.	
1.	AC Input:	Delta 3-phase, 400±10% (phase to phase)
2.	AC output:	Star 3-phase, 400±10% (phase to phase) 230 (phase to neutral)
3.	Frequency:	47 to 53 Hz
4.	Capacity:	60 kVA
5.	Duty cycle and use	24×7 Continuous, Indoor
6.	Common Mode Noise Rejection	Better than 110 dB
7.	Inter winding capacitance	Less than 0.005 pF
8.	Insulation resistance	More than 500 Mega Ω at 500V
9.	Terminals	Studs on fiber glass plate at rear
10.	Cable entry	Bottom
F. ENVIRONMENTAL CONDITION		
1	Operating Ambient Temperature	0°C to 40°C
2	Storage/Transport Ambient Temperature	- 25°C to 55°C
3	Relative Humidity	90%

Section-4.0(A)

Schedule of Requirements/Materials unpriced (Schedule of Requirements/Materials must be in the format given below for technical and commercial quotes).

{The tenderer must quote all items}

S. No.	Description	Make	Model	Qty.
1)	40 kVA, IGBT/PWM based (Rectifier & Inverter), true on-line double conversion fully DSP controlled type UPS system (3-Phase, 4 Wire input - 3 Phase, 4 Wire Output) with remote status display panel with interface cables as per AIR Specifications [Including Transient Voltage Surge Suppressor (TVSS) in input & output. (ANSI/ IEEE C62.41 1991 C1 (6KV @ 3KA))]			
2)	12 V Batteries of Sealed Maintenance Free (AGM-VRLA type) Battery Bank suitable to provide 15 minutes (minimum) backup (EOL) as per AIR specification. Minimum Battery Capacity: (45000VAh minimum) Tenderer to give:			
	No. of batteries with UPS:			
	Ah of each battery:			
	DC bus voltage:			
	Size of battery bank:			
3)	60 kVA Isolation Transformer as per AIR specification.			
4)	Any other item required for the completeness of the UPS system.			
5)	Installation, Testing and Commissioning of the UPS system including double earthing as per electricity rules.			

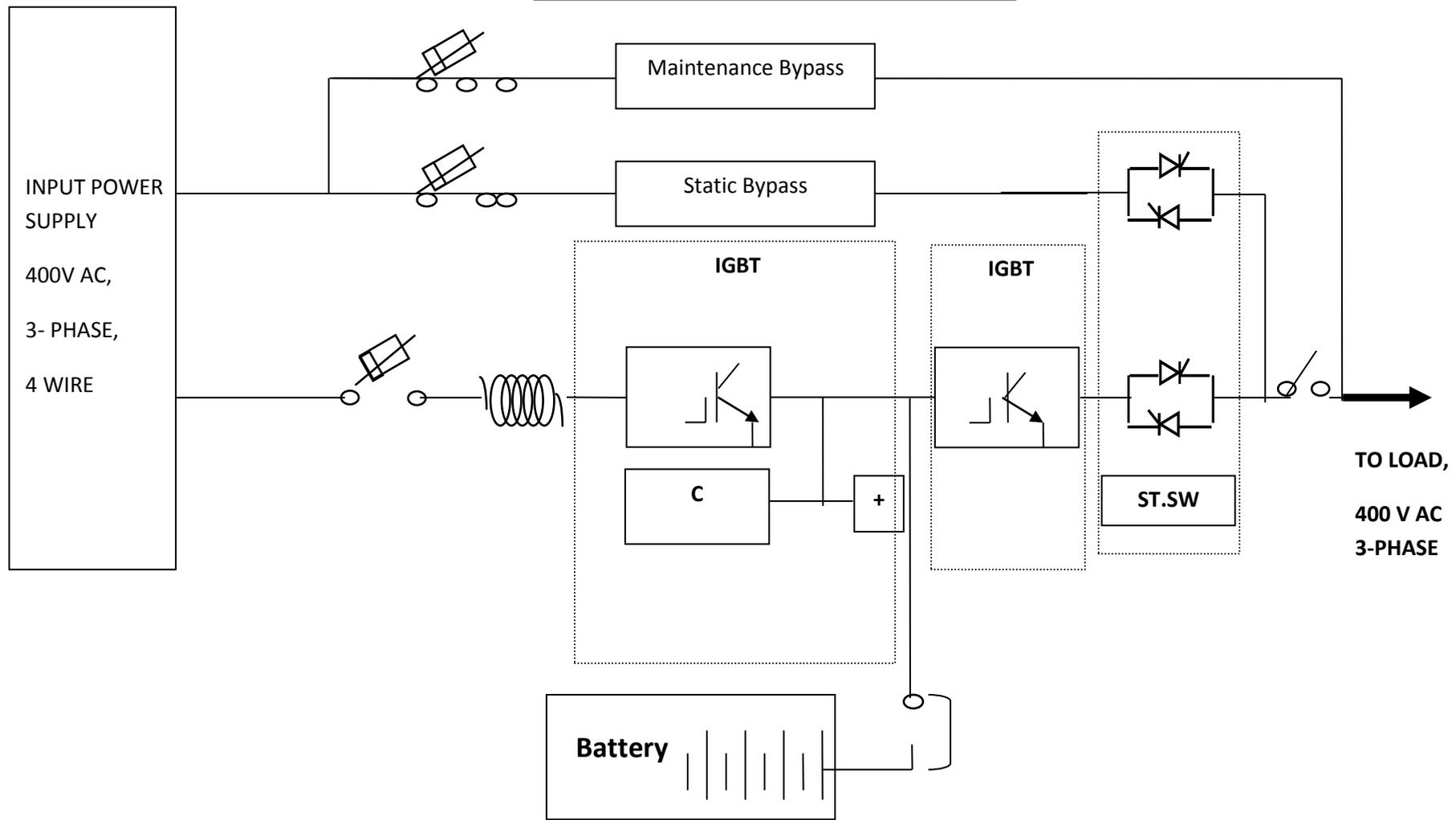
Section-4.0(B)

Schedule of Requirements/Materials unpriced (Optional items) (Not to be considered for Ranking)

S. No.	Description	Make	Model	Qty.
1)	Recommended spares for one set of UPS System. (Items wise details of offered and included materials, items & part No. if any, are to be given by the tenderer).			

All India Radio at its own discretion may procure spares for a value not exceeding 10% of the cost of equipments. The tenderer should quote all the essential spares.

FIGURE -1
UPS SINGLE MODULE -SUGGESTIVE
CONFIGURATION



INSTRUCTIONS TO BIDDER – ONLINE MODE

DEFINITIONS:

- **C1 India Pvt. Ltd.:** Service provider to provide the e-Tendering Software.
- **Prasar Bharati e-Procurement Portal:** An e-tendering portal of Prasar Bharati introduced for the process of e-tendering which can be accessed on <https://prasarbharati.eproc.in>.
- Bidding document may be downloaded from below mentioned web sites
 - a. <https://prasarbharati.eproc.in> ,
 - b. <https://eprocure.gov.in/epublish/app> ,
 - c. <https://prasarbharati.gov.in>
- **E-Bids are to be submitted on the e-tender portal:** <https://prasarbharati.eproc.in>

ACCESSING / PURCHASING OF BID DOCUMENTS :

- 1) It is mandatory for all the bidders to have Class-III Digital Signature Certificate (With Both DSC Components, i.e. Signing & Encryption) from any of the licensed Certifying Agency under CCA, Ministry of Electronics and Information Technology, Government of India to participate in e-tendering portal of Prasar Bharati. Bidders can see the list of licensed CA's from the link www.cca.gov.in C1 India Pvt. Ltd. also facilitate Class III Digital Signature Certificate (With Both DSC Components, i.e. Signing & Encryption) to the bidders. Bidder may contact C1 India Pvt. Ltd. at mobile no. +91-8130606629 for DSC related queries or can email at vikas.kumar@c1india.com
- 2) To participate in the e-bid, it is mandatory for the Applicants to get themselves registered with the Prasar Bharati e-Tendering Portal (<https://prasarbharati.eproc.in>) to have a user ID & Password which has to be obtained by submitting a non-refundable annual registration charges of Rs. 450/- plus 18% GST through **online** mode (net banking/debit card/credit card). Validity of Registration is 1 year.
- 3) The amendments / clarifications to the tender, if any, will be posted on the Prasar Bharati e-Tendering Portal (<https://prasarbharati.eproc.in>).
- 4) To participate in bidding, bidders have to pay Tender Processing Fee of Rs.._____ (PLEASE MENTIONE) plus 18% GST (Non-refundable) per Tender per Bid through online mode (net banking/debit card/credit card).
- 5) The Bidder may modify or withdraw their bid after submission prior to the Bid Due Date. No Bid shall be modified or withdrawn by the Bidder after the Bid Due Date and Time.
- 6) Both 'EMD' and 'Tender Document Fee', if any, are mentioned in individual tender document published at Prasar Bharati e-Tendering Portal (<https://prasarbharati.eproc.in>).
- 7) For helpdesk, please contact e-Tendering Cell and Help Desk Support Monday to Friday Ph: **0124-4302033/36/37, prasarbharatisupport@c1india.com.**

- 8) It is highly recommended that the bidders should not to wait till the last date of bid submission to avoid complications like internet connectivity issue, network problems, system crash down, power failure, browser compatibility issue, system compatibility issue, improper digital signature certificate problem etc. In view of this context, neither Prasar Bharati nor C1 India Pvt. Ltd will be responsible for such eventualities.
- 9) The Bidders/ Vendors shall be charged the Processing Fees in according with the Estimated Cost of respective Tenders. The following are the charges to be paid by the Bidders /Vendors on the e-procurement portal:

Estimated value of Tender	Processing fees Per Tender Per Bidder
Less than or Equal to Rs. 10 Lakhs	₹. 475.00 + 18 % GST
More than 10 Lakhs but Less than or equals to 50 Lakhs	₹. 925.00 + 18 % GST
More than 50 Lakhs	₹. 1150.00 + 18 % GST
Annual charges for Online Bidder / Vender for the Registration	₹. 450.00 + 18 % GST

General FAQs

1. Important points to remember edited

- a) On the time of Registration in PRASAR BHARATI e Portal define correct e-mail id. You will not receive addendum notifications if this e-mail Id is wrong.
- b) Bidders are requested to make note of dynamic time being displayed on e-Procurement portal of PRASAR BHARATI to ensure that the bids are submitted on time.
- c) Make sure your registration details reflect your current status,as these will be recorded when login and this makes clear who the tendering entity is for the evaluation team and makes the evaluation faster.
- d) Try to avoid responding at the last minute. Try to submit you Bids through e-Procurement well in time.

9. What Internet settings do I have to maintain for Bidding?

Web Browser: Internet explorer v 11 ii) Proxy: If you are unable to access PRASAR BHARATI e-Procurement site or Bid Documents, PRASAR BHARATI if you are using proxy to connect to internet or if your PC is behind any firewall. Contact your system administrator to enable connectivity. Please note that Port should be enabled on your proxy/firewall for HTTPS connectivity. Dial-up internet connectivity without Proxy settings is another option. Technical Settings Java Runtime Environment must be installed. Acrobat Reader must be installed. Recommended Screen Resolution: 1024

by 768 pixels Settings for Microsoft Internet Explorer Recommended way is to add following e-Procurement sites to Trusted Sites zone <https://prasarbharati.eproc.in>

1. In Internet Explorer, go to Tools > Internet Options...
2. Click on Security tab, and then click Trusted sites zone.
3. Click Sites... button.
4. In Add this Web site to the zone: text box, type <https://prasarbharati.eproc.in>
5. Click Add button.
6. Choose OK or Close button.
7. Now, Click on Custom Level.. button, Security settings window opens up,

maintain following values for below parameters

Parametre	Value
Allow Scriptlets	Enable
Automatic prompting for ActiveX controls	Enable
Binary and script behaviors	Enable
Download signed ActiveX controls	Enable
Download unsigned ActiveX controls	Enable
Run ActiveX Controls & Plug-ins	Enable
Scripts ActiveX Controls marked safe for scripting	Enable
Initialize and script ActiveX controls not marked as safe	Enable
Allow previously unused ActiveX Controls to run without prompt	Enable
Script ActiveX controls marked safe for scripting	Enable
Downloads	Enable
File Download	Enable
Java Permission	Medium
Safety Software Channel Permission	Medium
Safety Use Pop-up Blocker	Disable
Active Scripting	Enable
Scripting of Java Applets.	Enable

3. What technology will Suppliers need to use the e-Procurement service?

The service is web-based and is designed to be accessible to any prospective Supplier using a computer equipped with Internet connection. That means that if you are reading this page on the Internet, then you can probably use the service.

4. What is Encryption?

Prevents any non-authorized party from reading or changing data. The level of protection provided by encryption is determined by an encryption algorithm. In a brute-force attack, the strength is measured by the number of possible keys and the key size. For example, a Triple-Data Encryption Standard system (3 DES) uses 112-bit or 168-bit keys and, based on currently available processing power, is virtually immune to brute-force attacks. Business to Business VPNs (Extranets) share sensitive data with multiple organizations, so demand the highest level of security. This requires public key encryption and/or secure key exchange, both of which are designed to eliminate the risk of the key becoming known to an unauthorized party.

5. Who is a Certifying Authority?

A trusted third-party organization or company that issues digital certificates used to create digital signatures and public-private key pairs. The role of the CA in this process is to guarantee that the individual granted the unique certificate is, in fact, who he or she claims to be. Usually, this means that the CA has an arrangement with a financial institution, such as a credit card company, which provides it with information to confirm an individual's claimed identity. CAs are a critical component

in data security and electronic commerce because they guarantee that the two parties exchanging information are really who they claim to be.

6. What is a Digital Signature?

A digital code that can be attached to an electronically transmitted message that uniquely identifies the sender. Like a written signature, the purpose of a digital signature is to guarantee that the individual sending the message really is who he or she claims to be. The Digital certificates used to create digital signatures are issued by a trusted certifying authority authorized by the Controller of Certifying Authorities of India. For PRASAR BHARATI eprocurement Portal users need Minimum Class III certificate with both Signing and Encryption component.

7. How Secure is it?

PRASAR BHARATI - e-Procurement portal (<https://prasarbharati.eproc.in>) is a secure portal. The security features incorporated in the application ensures that all activities are logged and no unauthorized person has access to data. Digital Signature: The solution includes capturing Digital Signature Authorized and certified by approved agency nominated by Controller of Certifying Authorities under Ministry of IT, Govt. of India. Process Validation: The Solution has been so architected that a user (PRASAR BHARATI Officers / Bidders) cannot view the commercial bid of any Bidder till the date & time specified for the opening of the commercial bid is due. All the documents are encrypted. Unauthorized Access: The entire solution is behind a firewall and unauthorized access is not allowed. The login passwords of all users are encrypted at the database level. 128 bit SSL Certificate from VeriSign is used for communication between the browser and the web server. This ensures that all communication between browser and web server is encrypted and cannot be hacked. Compliance to IT ACT: The complete e-Tendering process is compliant with THE INFORMATION TECHNOLOGY ACT, 2000 of the Govt.of India

8. What are the benefits in receiving / submitting tenders online?

Electronic or Online Tendering is just carrying out the same traditional tendering process in an electronic form, using the Internet. Using Online Tendering, the Bidders can:

- Reduced costs - No postage, printing and traveling costs for bid documents to be sent to respective offices of PRASAR BHARATI.
- Speed - Using the service means we will be able to shorten tendering periods for tenders, eliminate postage delays and rapidly disperse tender returns for evaluation, so providing faster decision making.
- Peace of Mind - Eliminates worries regarding timely delivery of documents against a deadline by giving instant delivery.
- Efficiency - Enables tenders to be created, exchanged and stored electronically:
- Receive notification of the relevant tenders for Limited Tender Receive tender documents online.
- Submit Bids Online anytime through portal with 24x7 availability.

- View online the bids of competitors along with that of your own after opening of Techno-commercial / Priced Bids.
- View Corrigendum/Addendum online • Receive notification for selection /rejection at Techno-commercial Bid Evaluation Stage.

9. What if I need help while submitting my electronic tender?

If you need help while submitting your electronic tender, please contact Help Desk Officers during Business Hours at: prasarbharatisupport@c1india.com +91-124-4302033 / 36 /37 Business Hours : 10:00 to 18:00 Hrs India Time (GMT + 5:30 Hrs) Or you can also contact as per the contact details in the Tender Documents.

10. How do I upload my tender documents?

You can upload your tender documents directly from your PC in the designated folder created for you in On-line Bid form. Please refer the section on uploading various Tender documents in the help guide provided to you along with your tender documents or you can go through the Bidding Manual available in the home page at PRASAR BHARATI e-Procurement site.

11. What if I cannot download a softcopy of the tender or I have some problem/queries regarding your website?

If you are having trouble downloading a softcopy of the tender document from the portal, please contact our Help Desk Officers during Business Hours or you can also contact as per the contact details in the Tender Documents.

12. How do I get a valid User Id to access PRASAR BHARATI e-Procurement portal?

You have to register your company in e-Procurement Portal of PRASAR BHARATI. While registering you have to choose your user id & password. Once your registration is completed, Vendor Administrator for the portal will approve & activate your User Id. If you are having trouble in getting the user id, please contact our Help Desk Officers during Business Hours 10:00 to 18:00 hrs (MON-FRIDAY).

13. What are the pre-requisites to submit tenders on-line?

1. Vendor should have a valid User Id to access e-Procurement portal of PRASAR BHARATI.
2. Vendor should have a legally valid digital signature certificate from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India.
3. Vendor should have an internet connection.
4. The internet browser used should be Internet Explorer version 11
5. The operating system should be Microsoft Windows 7 or 10
6. Vendors should fulfill any other pre-requisites mentioned in the tender documents of a specific tender.

14. Do I have to compulsorily submit my tender through the Internet?

Yes. Techno-commercial and Priced Bids for all the tenders published through e-Procurement portal of PRASAR BHARATI have to be submitted online only. However, documents like Tender Fee or EMD drafts, Technical Specification documents or any other document as mentioned in the tender documents necessarily have to be submitted in originals and physically through post, courier or in person before a date and time specified in the tender.

15. What does it mean to be "Online"?

Yes. Techno-commercial and Priced Bids for all the tenders published through e-Procurement portal of PRASAR BHARATI have to be submitted online only. However, documents like Tender Fee or EMD drafts or any other document as mentioned in the tender documents necessarily have to be submitted in originals and physically through post, courier or in person before a date and time specified in the tender.

16. What is "e-Tendering at PRASAR BHARATI e-Procurement portal"?

Tenders for PRASAR BHARATI are hosted selectively on PRASAR BHARATI e-Procurement portal <https://prasarbharati.eproc.in>. All vendors registered with the portal can participate in such tenders online through this portal. Vendors can download tender documents, submit priced bids and techno-commercial technical bids along with details of Tender Fee and EMD from their desktops.

17. What is Electronic Tendering?

Electronic Tendering is carrying out the traditional tendering process in an electronic form, with the internet. Using E-Tendering PRASAR BHARATI can:

- Create and publish tender
- Sell Tenders
- Receive Bids
- Evaluate Tenders
- Award Contract

In E-Tendering, the suppliers can

- Receive notification of the relevant tenders
- Purchase tenders document
- Submit Bids Online
- Track the status of their bids

GENERAL TERMS AND CONDITIONS FOR SUPPLY/ WORK ORDER

- 1.NAME OF PURCHASER : PRASAR BHARATI
- 2.PAYING AUTHORITY : The Additional Director General (E-WZ), All India
Radio & Doordarshan, Mumbai
- 3.PAYMENT TERMS :
- a) **80 % of the contract price for the equipments/materials inclusive of goods service tax shall be paid on initial inspection and delivery of equipments at site in good condition.** The consignee will complete necessary formalities at his end and verify the bill and submit to the paying authority along with measurement book for making payment.
- b) **20 % of the contract price for equipments and 100 % of installation charges on satisfactory completion of installation, testing, commissioning and handing over.** The consignee will complete necessary formalities at his end and verify the bill and submit to the paying authority along with measurement book for making payment

Furtherthe contractor/supplier/firm should submit all the bank details such as:

- a. Name of the Bank
- b. Branch
- c. Account Number
- d. IFSC code
- e. MICR Code

along with their bill for online payment. Photostat copy of the cancelled cheque leaf may be enclosed.

4. **BILLS** : All the supplies and works shall be in conformity with the order and the entire/ part bills shall be prepared in quadruplicate in the same format as that of the supply order. All those part bills shall be submitted to the consignee for necessary and onward transmission to the paying authority.
5. **PRE-DISPATCH INSPECTION:**
The stores/material/equipment will be inspected by the indenter or his authorised representative at manufacturers work before dispatched as specified in specification and in accordance with standard specified in the tender.
6. **DISPATCH INSTRUCTIONS:**
The contractor shall arrange to dispatch the good duly insured direct to the consignee under prior intimation for delivery at site by whichever mode of transport he may choose, to ensure safe delivery of goods at site. Unloading shall be done at site at the contractor's expense. The consignee will provide only storage space .The contractor will provide his own security like locking etc. and store the material at his own risk.
7. **INSPECTION**
The material will be inspected at manufacturer's workshop. All necessary tools equipments will be arranged by manufacturer/tenderer. If required any other tests are necessary and required to be carried out, the arrangements are to be made by manufacturer/tenderer. In case of disputes third party inspection will be carried out

as per BIS standard for which charges will be borne by the firm/tenderer. If any damages are found, material will be rejected

8. INSURANCE:

The contractor shall arrange for the insurance covering the risk during transit storage and installation till commissioning. The contractor shall take insurance for his men while working at AIR site against any accident, death, etc. Similarly equipments, instruments, tools etc. belonging to the contractor shall be insured against damage, loss, theft etc. All the charges for such insurance shall be borne by the contractor.

9. ADDITIONAL QUANTITIES

The purchaser reserves the right to place order for additional quantity up to 50% of the ordered quantity at the same rates and terms and condition during the currency of the contract.

10. PENALTY FOR DELAY

If the contractor is unable to complete the supply ,installation ,testing and commissioning within the stipulated time limit the purchaser may at his option allow such additional time as may be considered justified with /without penalty and without altering terms and conditions of the order In the event of failure of the contractor to complete the supply, installation, testing and commissioning within the stipulated time or the extended time, the purchaser has the right to impose penalty of 0.5 per week or part thereof the contract price. The contractor's liability for delay, however, shall not exceed 5%of the total contract price.

11. CONDITIONS OF CONTRACT:

a.The contractor shall submit the duplicate copy work order duly signed and stamped along with acceptance letter and security Deposit within 2 weeks. No supplies will be made and no work shall start unless the acceptance is signed by the contractor.

12. ENFORCEMENT OF LABOUR LAWS:

While engaging labour for carrying out obligation under the contract the contractor shall satisfy the condition laid down under contract labour (Regulation and Audition) Act 1970 and (Central) Rule 1971 as amended from time to time and observe all formalities required as per the said act /Rule The supplier shall also observe the provision under minimum wages act 1948 (central Rule 1950 amended from time to time while engaging labour.

13. ARBITRATION OF CONTRACTUAL DISPUTES:

If dispute arises out of in connection with the contract or in respect of any define legal relationship associated therewith or derived there from the parties agree to submit that dispute to arbitration under ICADR Arbitration Rule, 1996.

The authority to appoint the arbitrator(s) shall be international centre for Alternative dispute resolution. The international centre for Alternative Dispute Resolution will provide administrative services in accordance with the ICADR Arbitration Rules 1996.

1. The number of arbitrator(s) shall be one who has legal as well as technical background
2. The place of arbitration proceeding shall be Mumbai.

14. FORCE MAJEURE:

a) If at any time during the continuance of the contract the performance in whole or in part by the contractor shall be prevented or delayed by reason of any war, hostility acts of the public enemy, civil commotion, sabotage, fire floods, explosions, epidemics, Quarantine restriction, strikes, lock-outs or acts of god (therein after restriction refer to as events and provided notice of happenings of any such eventuality is given by the contractor within 21 days from the date of occurrence thereof ,the purchaser shall by reason of such event, neither be entitle to cancel this order not shall have any claim for damages against the contractor

in respect of such non-performance or delay in performance and delivery shall be resumed as soon as practicable after such events have come to an end or ceased to exist.

- b) Provided further that if the performance in whole or part or any obligation under this order is prevented or delayed by reasons of any such even for a period exceeding 180 days, the purchaser and the contractor shall meet to find a neutral agreement to any effect resulting the reform or the purchaser may at his option cancel order provided also if the order is cancelled under this clause the purchaser shall be at liberty to take over from the contractor at order prices all unused un-damaged and acceptable material bought out components and stores in course of manufacture in the possession of the supplier at the time of such cancellation or such portion thereof as the purchaser may deem fit accepting such material, bought out components and stores as the supplier may with the concurrence of the purchaser elect to retain.

15. CANCELLATION:

The Purchaser reserves the right to cancel the order in the event of non-performance/delay in execution of the work/supply or unsatisfactory performance by the contractor and recover payment already made if any along with losses/damages incurred.

Sanjay Bodele
Director (E)(AIR Project)
For Addl. Director General (E)(WZ)
Mobile No. 9653642743 Email ID-
mumbai.cewz@gmail.com
ddgairprojectwz@gmail.com

BILL OF MATERIAL / SCHEDULE OF REQUIREMENTS

Name of Work: Supply, Installation, Testing & Commissioning of 3 Phase, 4 wire 50 Hz, 40 kVA TRUE ON LINE UPS along with Battery Bank and Isolation Transformer at All India Radio, Ratlam.

Sr.	Description	Make	Model	Quantity
1.	40 kVA, IGBT/PWM based (Rectifier & Inverter), true on-line double conversion fully DSP controlled type UPS system (3- Phase, 4 Wire input - 3 Phase, 4 Wire Output) with remote status display panel with interface cables as per AIR Specifications [Including Transient Voltage Surge Suppressor (TVSS) in input & output. (ANSI/ IEEE C62.41 1991 C1 (6KV @ 3KA))]			
2.	12 V Batteries of Sealed Maintenance Free (AGM-VRLA type) Battery Bank suitable to provide 15 minutes (minimum) backup (EOL) as per AIR specification. Minimum Battery Capacity: (45000VAh minimum) Tenderer to give: No. of batteries with UPS: Ah of each battery: DC bus voltage: Size of battery bank:			
3.	60 kVA Isolation Transformer as per AIR specification.			
4.	Any other item required for the completeness of the UPS system.			
5.	Installation Testing and commissioning of the UPS system including double earthing as per electricity rules.			

(To be attached with Technical Bid without price in the FORMAT as above)

BILL OF MATERIAL / SCHEDULE OF REQUIREMENTS (OPTIONAL ITEMS)

Name of Work: Supply, Installation, Testing & Commissioning of 3 Phase, 4 wire 50 Hz, 40 kVA TRUE ON LINE UPS along with Battery Bank and Isolation Transformer at All India Radio, Ratlam.

Sr.	Description	Make	Model	Qty.
1.	Recommended spares for one set of UPS System. (Items wise details of offered and included materials, items & part No. if any, are to be given by the tenderer).			

(Not to be considered for Ranking)

Form of Performance / Bank guarantee Bond

In consideration of the President of India (hereinafter called "The Government") having offered to accept the terms and conditions of the proposed agreement between and (hereinafter called "the said contractor(s)" for the work (hereinafter called "the said agreement") having agreed to production of an irrevocable Bank Guarantee for Rs. (Rupeesonly) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

1. We (hereinafter referred to as the "Bank") hereby undertake to (indicate the name of the Bank. Pay to the Government an amount not exceeding Rs... (Rupees Only) on demand by the Government. 2. We do hereby undertake to pay the amounts due and payable (indicate the name of the Bank) under this Guarantee without any demur , merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs. (Rupees only). 3. We, the said Bank, further undertake to pay the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceedings pending before any Court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under, and the contractor(s) shall have no claim against us for making such payment. 4. We further agree that the Guarantee herein contained shall (indicate the name of the Bank) remain in full force and effect during the period that would be taken for the performance of the said agreement, and it shall continue to be enforceable till all the dues of the Government under or by virtue of the said agreement have been fully paid, and its claims satisfied or discharged, or till the Engineer-in-charge, on behalf of the Government , certifies that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor(s), and accordingly discharges this guarantee. 5. We Further agree with the Government that the Government (indicate the name of the Bank) shall have the fullest liberty without our consent , and without effecting in any manner our obligations hereunder , to vary any of the terms and conditions of the said agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractor(s), and to forbear or enforce any of the terms and conditions relating to the said agreement, and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said contractor(s) or for any forbearance , act of omission on the part of the Government or any indulgence by the Government to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision , have effect of so relieving us. 6. This Guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).

7. We lastly undertake not to revoke this Guarantee except with (indicate the name of the Bank) the previous consent of the Government in writing 8. This Guarantee shall be valid up to unless extended on demand by the Government. Not withstanding anything mentioned above, our liability against this Guarantee is restricted to Rs (Rupees only), and unless a claim in wiring is lodged with us within six months of the date of expiry or extended date of expiry of this Guarantee all our liabilities under this Guarantee shall stand discharged.

Dated the day of For

(Indicate the name of the Bank)

(Note: This EMD bank guarantee certificate should be prepared on a non-judicial stamp paper of Rs. 100/-)

ANNEXURE -D

Date:

To

The Addl. Director General (E)(WZ),
All India Radio & Doordarshan,
3rd Floor, A.O.A. Bldg, Doordarshan complex,
P.B. Road, Worll, Mumbai-30.

Sub: Your tender for Supply, Installation, Testing & Commissioning of 3 Phase, 4 wire 50 Hz, 40 kVA TRUE ON LINE UPS along with Battery Bank and Isolation Transformer at All India Radio, Ratlam.

Sir,

With reference to the above tender, having examined and understood the instructions, terms and conditions forming part of the tender, we hereby enclose our offer for the supply of the following items as detailed in your above referred tender. Basic Item No, Item Description, Make& Model

We further confirm that the offer is in conformity with the terms and conditions as mentioned in your above referred letter and enclosures. We also understand that the O/o Additional Director General (E) (WZ), AIR & DD, Mumbai-20 is not bound to accept the offer either in part or in full and that this Office has right to reject the offer in full or in part without assigning any reasons whatsoever.

We have enclosed the required bank guarantee favoring Prasar Bharati CE(WZ),AIR & DD, Mumbai issued by the(Bank),(Branch),..... (Date), and is payable at Mumbai, towards Earnest Money Deposit.

Yours faithfully,

Authorized Signatories
(Name & Designation, seal of the firm)

Date:

ANNEXURE -E

Manufacturer's Authorization Form (MAF)

Ref: No. _____ dated _____

To,

The Addl. Director General (E)(WZ),
All India Radio & Doordarshan,
3rd Floor, A.O.A. Bldg, Doordarshan complex,
P.B. Road, Worll, Mumbai-30.

Dear Sir,

Tender Reference _____ We _____ who are established and reputable manufacturers of _____ having factories at _____ and _____ do hereby authorize M/s _____ (Name and address of Agent/Dealer) to offer their quotation, negotiate and conclude the contract with you against the above invitation for tender offer. We hereby extend our full guarantee and warranty as per terms and conditions of the tender and the contract for the equipment and services offered against this invitation for tender offer by the above firm.

Yours faithfully,

Authorized Signatories
(Name & Designation)

Date:

For and on behalf of M/s _____ (Name of manufactures)

(Note: This letter of authority should be on the letterhead of the manufacturing concern and should be signed by a competent person of the manufacturer.)

ANNEXURE -F

Company Profile Details filled in this form must be accompanied by sufficient documentary evidence, in order to verify the correctness of the information.

1. Name of Company
2. Mailing Address
3. Telephone and Fax numbers
4. Date of registration of the Company
5. Year of commencement of Business
6. Name and designation of the person authorized to make commitments to the University
7. Contact details of the person authorized to make commitments to the University
8. Turnover of the company: 2016-2017
2017-2018
2018-2019
9. Profit of the company 2016-2017
2017-2018
2018-2019
10. Sales Tax Number
11. Income Tax Number
12. Whether direct manufacturer or authorized dealers

Signature
(Name & Designation)

Date :

(Note: This letter of authority should be on the letterhead of the manufacturing concern and should be signed by a competent person of the manufacturer.)

ANNEXURE-G

CERTIFICATE FROM THE VENDOR STATING THAT THE COMPANY HAS NOT BEEN BLACKLISTED BY ANY GOVERNMENT ORGANISATION

To,

The Addl. Director General (E)(WZ),
All India Radio & Doordarshan,
3rd Floor, A.O.A. Bldg, Doordarshan complex,
P.B. Road, Worli, Mumbai-30.

Sir,

This is to certify that M/s_____ has not been blacklisted by any Government Organization before submission of the tender document.

Yours faithfully,

Authorized Signatories

(Name & Designation)

Date: For and on behalf of M/s_____.

ANNEXURE-H

To,

The Addl. Director General (E)(WZ),
All India Radio & Doordarshan,
3rd Floor, A.O.A. Bldg, Doordarshan complex,
P.B. Road, Worli, Mumbai-30.
Sir,

We hereby certify that we have executed the following 3 projects to completion of similar items (True On-line 40 KVA UPS units) as offered in the present tender of other Government organizations/ /Govt. Research Organizations..

Note: Please quote only those projects which are of substantial value.

Name of the Vendor _____

S.No.	Name of Client/address	Project/Equipment	Clients Contact Details(Including name, email, phone and fax no. and address)	Remarks
1				
2				
3				

Signature
(Name & Designation)

Date:

(Note: This letter of authority should be on the letter-head of the manufacturing Concern and should be signed by a competent person of the manufacturer.)

ANNEXURE -I

Details of Support and Service Centers

To,

The Addl. Director General (E)(WZ),
All India Radio & Doordarshan,
3rd Floor, A.O.A. Bldg, Doordarshan complex,
P.B. Road, Worli, Mumbai-30.

Sir,

Name of the Vendor _____

S. No

Place

Own Office/ Franchise Postal Address

Contact Person & Contact details Number of Engineers Service Facilities available (Describe in detail)

Signature (Name & Designation)

Date:

(Note: This letter of authority should be on the letter-head of the manufacturing Concern and should be signed by a competent person of the manufacturer)

Warranty Compliance Statement

To,
The Addl. Director General (E)(WZ),
All India Radio & Doordarshan,
3rd Floor, A.O.A. Bldg, Doordarshan complex,
P.B. Road, Worli, Mumbai-30.

Sir,

Subject: Supply, Installation, Testing & Commissioning of 3 Phase, 4 wire 50 Hz, 40 kVA TRUE ON LINE UPS along with Battery Bank and Isolation Transformer at All India Radio, Ratlam.

This bears reference to our quotation Ref _____ Dated _____. We warrant that everything to be supplied by us shall be brand new, free from all defects and faults in material, workmanship and manufacture and shall be of the highest grade, quality and consistent with the established standards for materials specification, drawings or samples, if any, and shall operate properly. We shall be fully responsible for its efficient operation. We also confirm that all service related complaints for the UPS units will be attended within a period of 3 hours after the complaint is lodged on working days, and within a period of 12 hours on holidays. During the warranty period in case of failing to repair the machine, we will provide a stand-by arrangement till the equipment is repaired.

Yours faithfully

Signature
(Name & Designation)

Date :

(Note: This letter of authority should be on the letter-head of the manufacturing Concern and should be signed by a competent person of the manufacturer)

ANNEXURE -K

To,
The Addl. Director General (E)(WZ),
All India Radio & Doordarshan,
3rd Floor, A.O.A. Bldg, Doordarshan complex,
P.B. Road, Worli, Mumbai-30.
Sir,

Following are the deviations from the Technical Specifications and Terms and Conditions of the Tender.

Sr	Tender Document Clause	Technical Specification or terms and conditions in the Tender document	Deviati on offered	Reasons & whether deviation adds to the operational efficiency in case of the systems	Remar ks
1					
2					
3					
4					
5					
6					

- Note:**i) Above information in detail should be furnished separately for each of the items offered.
ii) Also in case of deviations from any of the terms and conditions of the tender.
iii) If any deviations from the technical specifications are warranted, reasons for such variations should be specified and
iv). Whether such variations add to improvement of the overall performance of the systems, if any, should be specifically mentioned and supported by relevant technical documentation as required above.

Signature
(Name & Designation)

Date:

ANNEXURE -L

(Commercial Deviations)

[Bidders Name & Address: _____]

To,
The Addl. Director General (E)(WZ),
All India Radio & Doordarshan,
3rd Floor, A.O.A. Bldg, Doordarshan complex,
P.B. Road, Worli, Mumbai-30.

Sub: Supply, Installation, Testing & Commissioning of 3 Phase, 4 wire 50 Hz, 40 kVA TRUE ON LINE UPS along with Battery Bank and Isolation Transformer at All India Radio, Ratlam.

Ref: your enquiry no:

Sir,

The following are the Commercial Deviations and variations from and exceptions to the specifications and documents for the subject package. These deviations and variations are exhaustive. Except for these deviations, the entire work shall be performed as per your specifications & documents.

Sr. No.	Clause /Ref. Page No.	As specified in the specification	Commercial Deviation and variation to the specification	Withdrawal price in Rs.	Remarks
1					
2					
3					

Date:

Place:

(Signature).....
(Printed Name)
(Designation).....
(Company Seal).....

CHECKLIST FOR ELIGIBILITY OF TENDERERS

FIRMS NAME:-

Enquiry No: -

Date:-

Sr. No.	Checklist point	Compliance by Tenderer Yes/No.	Supporting Documentary Evidence uploaded Yes/No	Remark
1	Earnest Money Deposit (EMD) Demand Draft (Annexure D)			
2	Registration of firm with NSIC/MSME for exemption of EMD			
3	Copy of PAN Card			
4	Copy of GST, TIN Card.			
5	Eligibility Criteria, documentary proof of having completed similar type of work/ supply. (Annexure H)			
6	Technical leaflets/manual for the make and model being offered			
7	Technical compliance statement to technical specifications.			
8	Full details of after sales service capability with location of service centers across the country. (Annexure I)			
9	Technical /commercial specifications: Deviations in case of noncompliance (Annexure K, L)			
10	Certificate of Original Equipment Manufacturer (OEM) / Original Equipment Assembler(OEA) of the offered make / models. (Annexure E)			
11	Company Profile (Annexure F)			
12	Certificate of Non Blacklisting (Annexure G)			
13	Warrantee Compliance Statement (Annexure J)			