

PRASAR BHARATI  
(Broadcasting Corporation of India)  
OFFICE OF THE CHIEF ENGINEER (SOUTH ZONE)  
ALL INDIA RADIO & DOORDARSHAN  
Swamy Sivananda Salai, Chennai - 600 005

No. CESZ/PUR-II/PSEA/NIT-03/2011-12

Date: 13-07-2011

**SUB.:** Enquiry for the NOTICE INVITING TENDER for the SITC of **Online 40 kVA UPS**(stand alone) with Isolation Transformer, 3 Ph AC input, 4 wire & 3Ph AC output , 4 wire with 30 min.backup time for FM TRANSMITTER OF ALL INDIA RADIO at **Madurai, Tirunelveli, Pondyerry, Vijayawada, Kochi & Gulbarga.( Total-6 Nos.)**

Sir,

Please find enclosed the enquiry for the Supply, Installation, Testing and Commissioning (SITC) of Online 40 kVA UPS(stand alone) with Isolation Transformer, 3 Ph AC input, 4 wire & 3Ph AC output, 4 wire with 30 min.backup time for FM TRANSMITTER OF ALL INDIA RADIO at Madurai, Tirunelveli, Pondyerry, Vijayawada, Kochi & Gulbarga.( Total-6 Nos.)

Tender documents can be collected from this office from 13.07.2011 to 25.07.2011 on all working days between 10.00Hrs to 17.00Hrs, on payment of required tender cost in the form of cash/demand draft or the tender documents can be down- loaded from the website mentioned below. Demand Draft for Rs. 500/- drawn in favour of Chief Engineer (South Zone) AIR & TV, Chennai-5, shall be enclosed in separate cover along with the tender otherwise the tender shall be rejected.

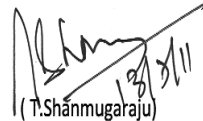
**[www.ceszaidd.org.in/tenders.html](http://www.ceszaidd.org.in/tenders.html)**,

**[www.allindiaradio.org/tender.html](http://www.allindiaradio.org/tender.html)**,

**[www.tenders.gov.in](http://www.tenders.gov.in)**

The tenders will be received at the Office of The Chief Engineer (SZ), AIR & DD, Swamy Sivananda Salai, Chennai-5, up to 1230 Hrs on **10.08.2011**. The Technical bid and E.M.D. will be opened on the same day at 1500 Hrs. The Commercial bid of technically qualified tenders will be opened at a later date that will be intimated to the tenderers.

Yours faithfully,



(T. Shanmugaraju)  
Deputy Director  
for Chief Engineer (SZ)

PRASAR BHARATI  
(BROADCASTING CORPORATION OF INDIA)  
OFFICE OF THE CHIEF ENGINEER (SZ)  
ALL INDIA RADIO & DOORDARSHAN  
SWAMI SIVANANDA SALAI  
CHENNAI 600 005

TENDER NO. CESZ/PUR-II/PSEA/NIT-03/2011-12

Date: 13-07-2011

FOR PROCUREMENT OF STORES / EQUIPMENT / SUPPLY, INSTALLATION,  
TESTING & COMMISSIONING (SITC) / SUPPLY, ERECTION, TESTING &  
COMMISSIONING (SETC)

**NIT for the SITC of 40 kVA UPS (stand alone) at**

**ALL INDIA RADIO**

**FM Transmitters- 6 Nos**



PRASAR BHARATI  
(BROADCASTING CORPORATION OF INDIA)  
OFFICE OF THE CHIEF ENGINEER (SZ)  
ALL INDIA RADIO & DOORDARSHAN  
SWAMI SIVANANDA SALAI  
CHENNAI 600 005

File No. **CESZ/PUR-II/PSEA/NIT-03/2011-12**

Dated:- 13-07-2011

To:

.....  
.....  
.....  
.....

**INVITATION TO BID**

On behalf of the Prasar Bharti (B.C.I.), sealed tenders are invited by this Organisation in the prescribed Bid Forms at Appendices, 2 to 7 of "Instructions to Bidders" enclosed at Annexure-I. The details of tender are given in the schedule below:

1. Tender No. : **CESZ/PUR-II/PSEA/NIT-03/2011-12**
2. Description and quantity of stores : **SITC of 40 kVA UPS of AIR, FM T/R-6 nos**
3. Delivery Period: **3 Months after the placement of order**
4. Tender Fee: **Rs.500/-**
5. Earnest Money: **Rs.78,000 /-**
6. Bid Validity up to: **120 (One Hundred twenty) days  
from the date of opening of  
Technical Bid.**

NOTE: Tender documents may be downloaded from the following websites:

**[www.ceszaidd.org.in/tenders.html](http://www.ceszaidd.org.in/tenders.html)**

**[www.allindiaradio.org/tender.html](http://www.allindiaradio.org/tender.html)**

**[www.tenders.gov.in](http://www.tenders.gov.in)**

7. Warranty: Required as per clause 8 of Annexure-II, General Terms & Conditions & as per Specs.
8. Performance Security Deposit Required as per Annexure-II, (General Terms & Conditions).
- (i) Amount : 10% of the order value in form of Demand Draft / Bank Guarantee/ FDR
- (ii) Validity : 60 (sixty) days beyond the date of expiry of warranty / guarantee
9. Correspondence Address: Dy Director (Purchase)  
O/o Chief Engineer (SZ)  
All India Radio & Doordarshan  
Chennai-600005
10. Paying Authority : Chief Engineer (South Zone)  
All India Radio & Doordarshan  
Chennai-600005.
11. Tender Opening Date: on **10-08-2011 Time 15:00 hrs.**
12. Terms of Delivery : Delivery at Consignees' place.  
**Station Engineer/ Installation Officer,  
All India Radio, FM Transmitting centre,  
Madurai, Tirunelveli, Pondicherry, Vijayawada,  
Kochi & Gulbarga.**

13. Important Instructions:

The tender will be governed by the "Instructions to the Bidder" as per Annexure-I; "General Terms & Conditions" placed at Annexure-II, and "Technical Specifications" placed at Annexure-IV.

Deviations/Exceptions to the clause, if any, should be explicitly recorded seriatim as a separate Annexure (Appendix 4 of Annexure-I), in your offer, failing which, all the clauses shall be deemed to have been accepted by you.

**Two Bid System** shall be followed for this tender. Tenderers should take due care to submit tenders in accordance with requirement in sealed covers as specified in clause 2 of "**Instructions to Bidders**" (**Annexure-I**). Bid evaluation criteria at Annexure-III shall be the basis for evaluation of tenders.

**The Technical & Commercial Bid should be submitted in separate Sealed Cover.**

**The EMD should be enclosed with the Technical Bid. (see annexure-I sl.no-15)**

The tenderer while submitting their bid, must adhere to the following instructions of Central Vigilance Commission, otherwise their offer is likely to be ignored.

1. One Agent / dealer / Supplier shall not represent two manufacturers of quote on their behalf in a particular tender i.e. one bidder shall quote one type of equipment in a particular tender.
2. Tender documents submitted by the tenderer shall be neatly tied and each page numbered and signed and stamped by them.

**NOTE:** The following documents must be submitted alongwith the tender failing which the offer may be liable to rejection and no further correspondence will be entertained in this regard.

- (a) **Original Equipment Manufacturer's Authorisation for equipment quoted.**
- (b) **Past Performance along with the user certificate in respect of timely and good quality supply of equipment / execution SITC / SETC ( Especially, the equipments should be supplied and installed at RF fields like AIR/DD Transmitter sites. ). Kindly refer item no.8 under Annexure-I.**

[ .....sd/-.....]  
Dy Director(Purchase)

for Chief Engineer(SZ)

### **LIST OF ANNEXURES**

	Pages
<b>Annexure-I : INSTRUCTIONS TO BIDDERS</b>	<b>5-14</b>
Appendix 1 : Bid Document Acknowledgement Form	15
Appendix 2&2A : Bid submission Form and Agreement	16-17
Appendix 3 : Exception / Deviations PROFORMA	18
Appendix 4 : Past Supplies / SITC / SETC Proforma	19
Appendix 5 : Bidders Information Proforma	20
<b>Appendix 6&amp;6A: Price Bid Proforma</b>	<b>21-23</b>
Appendix 7 : Authorization Letter for attending tender opening.	24
<b>Annexure-II : GENERAL TERMS AND CONDITIONS (GTC)</b>	<b>25-37</b>
<b>Annexure-III : BID EVALUATION CRITERIA</b>	<b>38-39</b>
<b>Annexure-IV : DESCRIPTION OF STORES / SITC / SETC AND TECHNICAL SPECIFICATION.</b>	<b>39-51</b>

This tender document consists of -51- pages.

**INSTRUCTIONS TO BIDDERS**

(Please sign each page of these conditions and send it with your offer)

**1. PREPARATION OF TENDER:**

- i) The bid shall be submitted in the prescribed proforma as per Appendices 2 to 6. The bid document duly filled in and signed should be returned whether you are quoting for any item or not. When items are not being tendered for, the corresponding space should be defaced by some such words as "Not quoting".
- ii) In the event of the space on the bid document being insufficient for the required purpose, additional pages may be added. Each such additional page must be numbered consecutively showing the Tender Number and duly signed. In such cases, reference to the additional page must be made in the tender form.
- iii) The bid document referred to above, if not returned or if returned but not duly filled-in, will be liable to result in rejection of the tender.
- iv) Bidders are advised in their own interest to ensure that all the points brought out in the checklist enclosed at Appendix 3 are complied with in their offer failing which, the offer is liable to be rejected.
- v) The Bids can only be submitted in the name of the bidder in whose name the bid documents were issued. The tender papers filled-in and completed in all respects shall be submitted together with requisite information and Annexures. It shall be complete and free from ambiguity, change or interlineations.

The tender submitted by bidders and any annotations or accompanying documentation submitted along with the tender, shall be in English language.

Bidders should indicate at the time of quoting against this tender their full postal / fax / E-mail addresses.

Bidders shall sign their proposal with the exact name of the firm to whom the contract is to be issued. The tender shall be duly signed and sealed by an executive officer of the bidder's organisation.

Each page of the tender shall be signed by a duly authorised officer and in the case of a Corporation the same shall be sealed with the Corporation seal or otherwise appropriately executed under seal.

Bidders shall clearly indicate their legal constitution and the person signing the tender shall state his capacity and source of his ability to bind the bidder.

The Power of Attorney or authorisation, or any other document consisting of adequate proof of the ability of the signatory to bind the bidder, shall be

annexed to the tender. This organisation may reject outright any tender unsupported by the adequate proof of the signatory's authority.

- vi) It must be ensured that each page of the tender including terms and conditions, Bid Evaluation Criteria and specification (Annexures I, II, III and IV) are signed by bidder and returned to this office along with offer.

## 2. DELIVERY OF TENDER

- 1 The tender will be on the basis of **"Two Bid System"** and offers are to be submitted in separate sealed covers.

The first inner sealed cover will contain "Technical Bid" having all details including the list of equipment to be supplied / SITC / SETC to be executed, but with price column blanked out. There will be no mention of price anywhere in the **"Technical Bid"** and **EMD** will also be sent in the above first inner cover. This cover will clearly be super-scripted with "Technical Bid" along with tender number and item description.

The second inner-cover will contain the price schedule duly filled-in and signed and contain all the commercial details of the bid and will be clearly super-scripted with **"Commercial Bid"** along with tender number. These two covers shall be put into an outer cover and sealed. The outer cover should duly bear the tender number and date of closing / opening prominently underlined along with the address of this office.

All General Terms and Conditions (GTC) attached with the invitation to tender are sacrosanct for considering any offer as a complete offer. It is therefore, important that all documents duly completed and signed are returned with your offer.

- 2.2 The right to ignore any offer, which, fails to comply with the above instructions is reserved. Only one tender should be included in one cover.
- 2.3 Your offer must reach this office not later than 12:30 hr. on the notified date of closing of the tender. Offers sent by hand delivery should be put in the Tender Box in this office before 12:30 hr. on the specified date. All outstation tenders, if sent by post, should be sent under registered cover.
- 2.4 **Any change in quotation after opening of tender will not be considered.**
- 2.5 This organization will not be responsible for the loss of tender form or for the delay in postal transit.
- 2.6 Tenderer is advised in his own interest to ensure that his offer reaches this office well before the closing date and time of the tender as **the offers received after the closing date and time of the tender, will not be considered.**
- 2.7 TELEGRAPHIC/TELEFAX/E-MAIL offers, received directly by this organisation, will not be considered.

### **3. VAGUE AND INDEFINITE EXPRESSION**

Tenders qualified by vague and indefinite expressions such as “subject to immediate acceptance” or “Subject to prior sale” etc. will not be considered.

### **4. VALIDITY PERIOD OF OFFER**

4.1 The tender shall be valid for acceptance for the period as indicated in the “Invitation to Bid” (hereinafter referred to as validity period) and shall not be withdrawn on or after the opening of tenders till the expiration of the validity period or any extension thereof.

The offers of those tenderers who have not kept the validity open till the period stipulated in the tender will be treated as un-responsive and will be ignored without making any reference to the tenderer.

4.2 The tenderer will undertake not to vary/modify the tender during the validity period or any extension thereof.

### **5. OPENING OF TENDERS**

5.1 The tenders will be opened at **15.00 hours** on the date of opening indicated in the “Invitation to Bid”. The tenderer or his authorised representative may be present at the time of opening of tender on the specified date, but a letter in the form annexed as Appendix-7 hereto must be forwarded to this office along with tender document and a copy of this letter must be produced in the office by the person attending the opening of tender. Unless this letter is presented by him, he may not be allowed to attend the opening of tender.

5.2 In case of unscheduled holiday on the closing / opening day of tender, the next working day will be treated as scheduled prescribed day of closing / opening of tender, the time notified remaining the same.

### **6. PRICE:**

6.1 The price quoted must be net for per unit and must include packing and delivery charges.

6.2 The tenderers are requested to quote their firm prices. Any change or modification to the offer after opening of the tender will not be considered at all.

6.3 The bidder/tenderer is advised to quote rates keeping in mind that repeat order can also be placed upto 50% of the original quantity of any item(s) on the same terms and conditions as stipulated in the original purchase order during the validity of the order, or within six months of original supply order, whichever, is later. It will be obligatory on the part of the supplier / contractor to execute such repeat order (s) also.

6.4 Spares, Annual Maintenance Contract and Optional Items shall be quoted separately in the price bid, wherever asked for. Spares, AMC, and optional items will not form the part of commercial bid and will not count for deciding the lowest bidder.

## **6.5 Payment of excise duty and sales tax / VAT (on ultimate products)**

Payment of excise duty and sales tax/VAT (on ultimate products), as applicable on the closing date of tender will be to the supplier's / contractor's account. Any statutory variation (both plus and minus) in the rate of excise duty/sales tax /VAT after closing date of tender/revised price bid but before the expiry of the contractual delivery / completion period will be to the account of the office.

The bidder(s) will indicate, in their bid, the amount with exact rate of the Excise and Sales tax/VAT on ultimate finished product, as applicable at tendering stage, separately in the bid. In case the above information subsequently proves wrong, incorrect or misleading (a) this Organisation will have no liability to reimburse the excess in the difference in rates of the item under which the duty/tax assessed finally (b) this Organisation will have the right to recover the difference in case the rate of duty / tax finally assessed is on the lower side.

Any increase in excise duty, sales tax / VAT during extended period of the contract / supply order will be to supplier's / contractor's account where such extension in delivery of the materials/completion of the project was on the request of supplier / contractor. However, any decrease in excise duty/sales tax / VAT during extended period of the contract / supply order, will be to the account of this Organisation.

6.6 As the material, which is to be transported to the consignee, belongs to the Government of India / Prasar Bharati and therefore is exempted from entry tax / octroi duty / toll tax. However, if the State Governments / Statutory Local Bodies are bound to levy such taxes, the taxes will be paid by supplier / contractor. Supplier/Contractor may raise its claim, for reimbursement of such duties / taxes paid, with Organisation, along with original receipt of the payment.

6.7 In case of SITC of / SETC tenders, rganiz breakup details of cost of all the identifiable store items of supply and ITC / ETC charges shall be given along with a price bid.

6.8 The taxes like excise duty, sale tax / VAT, service tax etc. as applicable on the goods / services shall be quoted separately in the price bids.

## **7. Trade/Volume Discount**

Bidders will not indicate separate discount. Discount, if any, should be merged in the rates against the quoted item(s).Discount of any type indicated separately will not be taken into account for evaluation purposes.

## **8. Eligibility:**

Bids should be from actual manufacturers. 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 manufacturers who authorised them to market their products, provided further, such an authority letter is valid at the time of bidding. The supplier / contactor shall ensure that the required warranty cover is provided by the original manufacturer of the product.

In case of SITC / SETC and specialised work, the contractor should also have sufficient experience and shall submit the experience certificate of satisfactory completion of atleast three similar works, each of value not less than 40% of the estimated cost put to tender, or two similar works, each of value not less than 60% of the estimated cost, or one similar work 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.

**9. Purchase Preference for Product of Public Enterprises:**

The Organisation reserves the right to allow to the public enterprises, purchase preference facilities as admissible under the existing policy of the Government of India and not to accept the lowest rate quoted by the tenderer.

**10. Scope of Supply of Equipments / SITC / SETC:**

The delivery of stores / execution of SITC / SETC is required as stated in Invitation to Bid on terms specified in clause 2 of General Terms & Conditions at Annexure-II. Any deviation must be clearly mentioned.

**11. Samples**

11.1 Samples are not required unless specifically called for.

11.2 The samples when called for should be sent to the purchasing authority along with the offer. The cost and freight of sending the samples shall be borne by the tenderer and there will be no obligation on the part of receiving officer for their safe custody. Samples received late are liable to be ignored. If the samples are sent by Railway Parcel, The Railway Receipt (RR) should be posted separately to the addressee to which the samples are sent (under covering letter giving the particulars of tender number and due date) well in advance to enable the addressee to get the parcel released before the date of opening of tender. The RR should not be sent along with the offer. Samples submitted with the tenders, which have not been accepted; will, if it has not been destroyed during testing, be delivered at your cost provided the application for return is made to the officer to whom the samples are sent, within one month of the date fixed for the opening of tender or after modification / cancellation of demand. This organisation will not be liable for loss, damage, or breakage in respect of samples. If no application is received within the due date, samples will be disposed of by public auction and the sale proceeds credited to this Organisation.

**12. Consideration of offer in full or in part:**

This Organisation may reject / accept or prefer any tender without having to assign any reason whatsoever. This Organisation also reserves to itself the right to accept any tender in part or split the order between two or more bidders. Tenderers are at liberty to quote separate rates for the whole quantity as well as reduced quantity.

### **13. Acceptance of Offer by Telegram / Fax/E-mail**

Acceptance by the purchaser will be normally communicated by Telegram/Fax/E-mail .In case where acceptance is communicated by Telegram/Fax/E-mail, the regular order will be forwarded as soon as possible but the instructions contained in the Telegram/Fax/E-mail should be acted upon immediately. With the issue of Telegram/Fax/E-mail of acceptance, the contract shall be deemed to have concluded. Contract shall mean and include the invitation to tender / instructions to tenderers, acceptance of tender, supply of stores / SITC / SETC particulars and the general and special conditions specified in the acceptance of tender.

### **14. Specifications:**

- i) Unless otherwise asked for, the offers of “Makers design or for alternative specifications, the tenderer must note that his offer, will be rejected in case the tender stipulations are not complied with strictly or the goods offered do not conform to the required specifications indicated therein. The lowest tender will be determined from among those tenders, which are in full conformity with the required specifications.
- ii) In case the offers have been asked for “Makers design” or for alternative specifications, the tender will clearly indicate as to how the materials being offered will serve this Organisation’s purpose and in what respect the offer differs from the required specifications.
- iii) If this Organisation finds that materials supplied / works carried out are not of correct quality and are not according to required specifications or otherwise not satisfactory owing to any reason of which the Organisation will be the sole judge, The Organisation will be entitled to cancel the contract for supply of stores / SITC / SETC and meets it requirements of stores / SITC / SETC from the open market at the risk and cost of the supplier / contractor, reserving always to itself the right to forfeit the security deposit placed by the supplier / contractor for fulfillment of the contract.

### **15. Earnest Money Deposit / Performance Security Deposit**

#### **15.1 Earnest Money Deposit :**

The bidders must enclose with their technical bid alongwith EMD in the form of Demand Draft in favor of Chief Engineer (SZ), All India Radio & Doordarshan, Chennai-600 005. from a Commercial Bank . EMD by means of Bank guarantee or any other mode of payment other than DD shall not be accepted.

#### **15.2 Offers without EMD will be ignored.**

15.3 The Earnest Money deposited by the tenderer shall be forfeited by this Organisation 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 Organisation 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.
- 15.4 The EMD of unsuccessful bidders will be returned on finalization of the tender. The EMD of successful bidder will be returned on receipt of security deposit or it may be adjusted in the security deposit if requested by the tenderer.

### **15.5 Performance Security Deposit:**

The contractor shall furnish the security deposit within 2 weeks of placement of order at the rate of 10% of the total contract value subject to a maximum of Rs.5 lakhs at the time of signing the contract.

The Security deposit shall be furnished in favour of The Chief Engineer(South Zone), AIR & Doordarshan, Chennai-5 in any one of the forms:

Fixed Deposit receipt from a commercial bank/DD Payable at Chennai/Bank Guarantee from a commercial Bank valid up to the end of warranty period as per contract.

### **16. Transfer of Tender Documents:**

The tender is non-transferable.

### **17. Correspondence:**

i) Our Fax / Email address is:

Fax: 044-25381147

Email : 1.. [ceszpurchz@gmail.com](mailto:ceszpurchz@gmail.com)  
2. [purchase@ceszairdd.org.in](mailto:purchase@ceszairdd.org.in)

ii) All correspondence from tenderer / contractor shall be made to the Purchase Authority (by name), who has issued this tender.

iii) All correspondence shall bear reference to Tender No. / Purchase Order.

### **18. Order on Higher Tenderer:**

It should be noted that if an order is placed for supply of stores / SITC / SETC on a higher tenderer in preference to the lowest acceptable offer in consideration of an earlier delivery, the tenderer will be liable to pay to the Purchaser, the difference between the contract rate quoted by the lowest acceptable tenderer, in case he fails to complete the supply of stores / SITC / SETC in terms of such contract within the specified date of delivery. This is without prejudice to other rights under terms of contract.

### **19. Payment Terms:**

(i) **For Supply Contracts:**

(a) The supplier will submit its bill for 90% of the material cost along with copy of Inspection Certificate to the consignees. On receipt of stores in good condition, consignee will complete necessary formalities at his end and verify the bill and submit to the paying authority alongwith measurement book for making payment.

(b) The bill for balance 10% of material cost will be submitted by the suppliers along with proof of the deposit of performance security money for guarantee/ warranty period to the consignee. Consignee will verify the bill and submit the same to be paying authority for release of payment.

**(ii) For SITC / SETC (Supply, Installation / Erection, Testing & Commissioning) Contracts:**

- (a) 80 % of the contract price for the equipments/materials inclusive of excise duty and Sales 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 alongwith 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 alongwith measurement book for making payment.

**20. Unsolicited Post Tender Modification:**

In case certain clarifications are sought by this Organisation 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 Organisation 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 Organisation has to finalize its purchase within a limited time schedule. Therefore, it may not be feasible in all cases for this Organisation 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 Organisation's requirements may be rejected without seeking any clarifications.

**22. Income Tax/Trade Tax / Work Contract Tax Liability:**

- (i) The Bidder will have to bear all Income Tax liability both corporate and personal tax. Income tax on the contract value, as applicable, will be deducted at source by the paying authority.
- (ii) Some State Governments levy work contract tax/trade tax. These taxes are to be borne by the supplier / contractor, wherever applicable. These taxes will be deducted by the paying authority.
- (iii) Bidder must give the TIN / PAN, VAT / Sale Tax, Service Tax, Registration no. in Appendix – 5, failing which the offer will not be considered.

**23. 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.

**24. Replacement / Rectification:**

In the event the stores supplied or SITC / SETC carried out against the contract are found to be defective, the supplier / contractor will have to take back the defective materials at his own cost and replace / rectify the defects of the Stores / SITC / SETC free of charge without loss of time. The supplier / contractor will not be entitled to dispose of the Store / Equipment / Material given for replacement / rectification without the prior permission of this Organisation. All charges concerned with the rectification including freight charges will be borne by the supplier / contractor.

**25. Tender Fee: ( If applicable)**

- (i) Tender to be paid by Bidders is as indicated in the Invitation to Bid.
- (ii) The offers will not be considered without Tender Fee.

**26. Evaluation / Security of Bids:**

Technical / Commercial evaluation of bids shall be undertaken in accordance with the prescribed procedure by a Committee of the Organisation duly constituted for this purpose. The technical evaluation would be based on (i) assessment of technical capability of tenderer to manufacture tendered items of stores / carry out SITC / SETC; (ii) capability of tenderer to effect supply of stores / carry out SITC / SETC in stipulated time as assessed on the basis of installed capacity for manufacturing and turnover of tendered items in preceding three years; and (iii) past record of timely and good quality supply of tendered items of store / execution of SITC / SETC by tenderer in preceding three years.

**27. Employment by firms to officials of this Organisation:**

Firms / Companies, who have or had business relations with this Organisation, are advised not to employ serving employees of this Organisation without its prior permission or within the initial two years period after the retirement / resignation / severance from the service without specific permission of this Organisation. This Organisation may decide not to deal with such firms who fail to comply with the above advice.

**28. Arbitration :**

If any dispute, difference, question or disagreement shall at any time, hereafter arise, between the parties hereto or the respective representatives or assignees in connection with or arising out of the contract or in respect of meaning of specifications, design, drawings, estimates, schedules, annexure, orders, instructions the construction, interpretation of this agreement, application of provisions thereof or anything hereunder contained or arising hereunder or as to the rights, liabilities or duties of the said parties hereunder or any matter whatsoever incidental to his contract or otherwise concerning the works of execution or failure to execute the same, whether during the progress or work of stipulated/extended period or before or after the completion or abandonment thereof, it shall be referred to the sole arbitration of the person appointed by the Chief Engineer (SZ), All India Radio & Doordarshan, Chennai. There will be no objection to any such appointment that the arbitrator so appointed is an employee of this Organisation or that he had to deal with the matters to which contract relates and that in the course of his duties as this Organisation's employees he had expressed views of all or any of the matters in dispute or difference.

If an arbitrator to whom the matter is referred dies or refuse to act or resigns for any reason from the position of arbitrator, it shall be lawful for the Chief Engineer (SZ), All India Radio & Doordarshan, Chennai to appoint another person to act as arbitrator in the manner aforesaid. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor if both the parties consent to Chief Engineer (SZ), All India Radio & Doordarshan, Chennai to this effect failing which the arbitrator will be entitled to proceed de-novo.

It is a further term of this contract that no person other than the person appointed by the Chief Engineer (SZ), All India Radio & Doordarshan, Chennai as aforesaid shall act as arbitrator and that, if for any reason that is not possible, the matter is not to be referred to the arbitration at all.

The arbitrator(s) may from time to time, with the written consent of all the parties to the contract enlarge the time for making and Publishing the award. It is a term of the contract that the party invoking arbitration shall specify the disputes to be referred to arbitration under the clause.

It is also term of the contract that the contractor shall not stop the work under this contract and work shall continue as expected to continue whether the arbitration proceedings have commenced or not.

The arbitrator shall give reasoned award in respect or each dispute or difference referred to him. The award as aforesaid shall be final and binding on all the parties to the contract in accordance with the law.

The Venue of the arbitration shall be at New Delhi (India). Subject to as aforesaid, the provision of the Indian Arbitration Act, 1940 and any statutory modifications or re-enactments thereof and rules made there under and for the time being in force shall apply to the arbitration proceedings under this clause.

**PROFORMA FOR BIDDERS TO ACKNOWLEDGE THE BID DOCUMENT**

Dated:

Dear Sirs,

We hereby acknowledge receipt of a complete set of Bid Documents pertaining to procurement / SITC/SETC of \_\_\_\_\_ against \_\_\_\_\_

We have noted that the closing date for receipt of the tender by you is the time specified in the tender document and opening at specified time and date.

We guarantee that the contents of the above said Bid Package will be kept confidential within our company and text of the said package shall remain the property of your Organisation and that the said documents are to be used only for the purpose intended by your Organisation.

Our address for further correspondence on this tender will be as under:

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

Fax No :  
Telephone No :  
E-Mail No :  
Personal Attention of (If required):

Yours faithfully

**Bid Submission Form and Agreement**

Tender No. **CESZ/PUR-II/PSEA/NIT-03/2011-12**

To,  
**The Chief Engineer(SZ),**  
**All India Radio & Doordarshan,**  
**Chennai – 600005.**

Dear Sirs,

1. I/We hereby offer to supply the stores detailed in schedule hereto or such portion thereof as you specify in the Acceptance of Tender at the price given in the said schedule and agree to hold this offer open till .....I/We shall be bound by the communications of acceptance dispatched within the prescribed time.
2. I/We have understood the “Instructions to Bidders”, specifically the instructions to the tenderers in the booklet DGS&D-229 and accepted the “conditions of contract” and specifically the conditions of the contracts as contained in DGS&D-68 I for Supply/SITC/SETC and have thoroughly examined the specifications, drawings and/or pattern quoted in the schedule hereto and am/are fully aware of the nature of the stores required and my/our offer is to supply stores strictly in accordance with the requirements.
3. The following pages annexure-II-to-annexure-IV have been added to and form part of this tender.
  - a. Agreement at Appendix 2A on purchase of Tender documents and submission of Tender has been duly signed and returned herewith.

Yours faithfully,

Signature of witness

Address

Date

Signature of witnessAddress

**PRASAR BHARTI  
(BROADCASTING CORPORATION OF INDIA)  
OFFICE OF CHIEF ENGINEER (SZ), All India Radio & DOORDARSHAN  
CHENNAI – 600 005.**

**APPENDIX-2A**

**AGREEMENT**

Tender No. **CESZ/PUR-II/PSEA/NIT-03/2011-12**

To

**PRASAR BHARTI (B.C.I.)**

The Chief Engineer (SZ), All India Radio & Doordarshan,  
Chennai – 600005.

Sub:- Purchase Of Tender Documents

Ref:- Tender No. CE(SZ)/

The Chief Engineer(SZ), All India Radio & Doordarshan, Swami sivananda salai, Chennai – 600005, acting on behalf of Prasar Bharti (B.C.I.) and the Tenderer agree that the Tenders is an offer made on the condition that the Tender would be kept open in its original form without variation or modification for a period as the mention in the invitation bid the last date for the receipt of tenders stated in the SITC/SETC/NIT AND THE MAKING OF THE TENDER SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the Tender. We further agree that the contract consisting of the above conditions of Tender as the offer and the submission of Tender as the Acceptance shall be separate and distinct from the contract which will come into existence when tender is finally accepted by this Organisation. The consideration for this separate initial contract proceeding the main contract is that this Organisation is not agreeable to sell the Tender to the Tenderer and to consider the tender to be made except on the condition that tender shall be kept open for ..... days after the last date fixed for the receipt of tenders and the Tenderer desires to make tender on this condition after entering into this separate initial contract with this Organisation. This Organisation promised to consider the tender on this condition and the tenderer agrees to keep the tender open for the required period. These reciprocal promises form the consideration for this separate initial contract between the parties.

If Tenderer fails to honour the above terms and conditions this Organisation shall have unqualified, absolute and unfettered right to encash the earnest money submitted on this behalf.

Yours faithfully,

Yours faithfully,

(BIDDER)

(PURCHASER)

on behalf of the Prasar Bharti Corporation of India

(One copy of this agreement duly signed must be returned along with the Technical Bid)

**EXCEPTION / DEVIATION PROFORMA**

This organisation expects the bidders to fully accept the terms and conditions of the tender document. However, should the bidder still envisage some exception/ deviations to the terms and conditions of the tender documents, the same should be indicated here and put in unpriced bid i.e. "Technical Bids". The price effect for withdrawal of such exception(s) to be indicated in the price bids only. If this proforma is left blank, then it would be presumed that bidder has not taken any exception / deviations to the terms and conditions of the tender documents.

Clause No. of Tender document	Full compliance not agreed	Exception/ deviation taken by Bidder	Confirmation if price effect for withdrawal of this exception has been specified in the Price Bid	Remarks

Signature of the Bidder /Tenderer

Name

Seal of the Company

**BIDDERS PAST SUPPLIES PROFORMA**

Sl. No.	Name & Address of client	Period from..... To.....	Description of stores / works in details	Total quantity supplied successfully	Remarks

Note: Certificate from clients to be enclosed alongwith this proforma.

**BIDDERS INFORMATION PROFORMA**

Tenderer must give specific answers against each of the following questions.

Tender No. **CESZ/PUR-II/PSEA/NIT-03/2011-12**

Due for opening \_\_\_\_\_

- b. Whether stores offered / SITC/SETC conform to specification at Annexure-IV, if not, details of deviations must be stated here.
2. Date by which delivery of stores / execution of work can be completed.
3. Business name and constitution of tendering firm. Is the firm registered under?
- (i) The Indian companies Act, 1913.
  - (ii) The Indian Companies Act, 1932/1956
  - (iii) Any other Act, if not who are owners?  
(Please give a full name).
4. VAT / Sales tax Registration No.
5. Central Sales Tax Registration No.
6. Service Tax Registration No.
7. PAN No / TIN No.
8. Annual turnover for last 3 years.
9. Present worth of tendering firm.
10. Fax No.:
11. E-mail :

c. Valid Electrical License number of contractor, Attested copy of the License to be submitted.  
**(For Electrical Works)**

Signature of Tenderer

Date \_\_\_\_\_

## PRICE BID

### Schedule of Rates

(To Be Filled In By Tenderers)

Tender No **CESZ/PUR-II/PSEA/NIT-03/2011-12**

Tender's Name \_\_\_\_\_

Due Date \_\_\_\_\_

Delivery Period:

Tenderer's Quotation No. -----Validity of Quotation-----

**BILL OF MATERIAL (To be attached with Technical Bid without price).**

*(Bill of material must be in the format given below for technical and commercial quotes).*

Sl. No.	Description	Make	Model	Quantity
1)	40KVA IGBT/PWM based (Rectifier & Inverter), Fully DSP based Double Conversion UPS system. [(3 Phase, 4 Wire, input - 3 Phase, 4 Wire Output] as per AIR specs No. UPS_40KVA_JULY_2010_FM			
2)	Maintenance Free VRLA type Battery Bank suitable to provide 30 minutes (minimum) backup (EOL) as per tender specification. Total Battery Bank Capacity: DC voltage:12v No. of Batteries with UPS:			
3)	Remote Status display panel with interface cables			
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..			

**PRICE BID**  
**Prorata Break Up Details Of The Identifiable Items of Supply And ITC / ETC**  
**cost**

(To Be Filled In By  
Tenderers)  
(SITC of)

Tender No **CESZ/PUR-II/PSEA/NIT-03/2011-12**

Tender's Name ----- Due Date----- Delivery Period:-----

Tenderer's Quotation No. \_\_\_\_\_

\_\_\_\_\_ Validity of Quotation \_\_\_\_\_

Sl No.	Description of items/works	Quantity	Unit	Rate per unit (both in figures and words)	Total (both in figures and words)	Taxes if any (rate & amount)
1	2	3	4	5	6	7
1.						
2.						

**Grand Total (1+2) in Rs**  
(Both in words & figures)

Tenderer's Signature  
Date  
Seal

**APPENDIX-7**

No.

To,

PRASAR BHARATI (BCI),  
The Chief Engineer(SZ),  
All India Radio & Doordarshan,  
Chennai – 600005.

SUBJECT : Tender No. \_\_\_\_\_ due on  
\_\_\_\_\_

Sir,

Sri \_\_\_\_\_ has been  
authorized to be present at the time of opening of above tender due on  
\_\_\_\_\_ at Chennai-5 on my/our behalf.

Yours faithfully,

Signature of Tenderer

Copy to : Shri \_\_\_\_\_ For  
information and for production before the time of opening of tenders.

**General Terms And Conditions (GTC)**

(Each page must be signed and returned alongwith your offer)

**Definitions**

Unless inconsistent with or otherwise indicated by the context, following terms stipulated in this ORDER shall have the meaning as defined hereunder.

**1.1 Order**

Shall mean written purchase order issued by this organisation to the successful bidder including subsequent amendments to ORDER in writing thereof.

**1.2 The Organisation /Purchaser**

Shall mean PRASAR BHARATI (BCI), CHIEF ENGINEER (SZ) All India Radio & DOORDARSHAN, CHENNAI -600005, acting on behalf of President of India shall include all their legal representatives, successors and assignees.

**1.3 Supplier/Contractor**

Shall mean any person or persons of firm or company in India as well as abroad whose bid has been accepted by this Organisation and the legal representation, representatives, successors and permitted assignee of such person, persons, firm or company.

**1.4 Sub-Contract**

Shall mean ORDER placed by the SUPPLIER/CONTRACTOR for any portion, of the ORDER or work subletted with necessary written consent of this Organisation on third party. Such sub-letting shall not relieve the contractor from any obligation, duty or responsibility under the Contract.

**1.5 Sub-Contractor**

Shall mean any person or persons or firm or their legal representatives, successors, assignees to whom part of ORDER has been sub-letted by the SUPPLIER/CONTRACTOR after necessary consent of this Organisation.

**1.6 ORDER PRICE**

Shall mean the sum accepted or the sum calculated in accordance with the rates accepted by this Organisation and amendments thereof and shall include all fees, registration and other charges paid to statutory authorities without any liability on the Organisation for any of these charges unless specially agreed to, in writing by this Organisation.

## **1.7 DELIVERY PERIOD**

Shall mean dispatch of the stores or receipt of the stores or installation and commissioning or erection and commissioning or fabrication and erection of the stores depending on the type of contract (Supply of Stores / SITC / SETC) by the date specified in the ORDER

## **1.8 DESTINATION**

Shall mean the location of the consignees for which this ORDER has been issued.

## **1.9 EQUIPMENTS/MATERIALS**

Shall mean and include any equipment, instruments, stores and goods to be supplied for under the ORDER and amendments thereto.

## **1.10 DRAWINGS**

Shall mean and include all Engineering sketches, general arrangements, layout drawing, Sectional plans, all elevations etc., related to the ORDER together with modification and revision thereto.

## **1.11 SPECIFICATIONS**

Shall mean and include detailed description, statements to technical data, performance characteristic and standards (Indian as well as international as applicable and as specified in the ORDER).

## **1.12 INSPECTION OFFICER**

Shall mean any person or outside Agency nominated by this Organisation to inspect equipment, materials and services, if any, in the contract stage-wise as well as final before dispatch at SUPPLIERS Works and on receipt at destination as per the terms of the ORDER.

## **1.13 TESTS**

Shall mean such process or processes to be carried out by the SUPPLIER/CONTRACTOR as are prescribed in the ORDER considered necessary by this Organisation or their representative in order to ascertain quality, workmanship, performance and efficiency of equipment or part thereof

## **1.14 APPROVAL**

Shall mean and include the written consent either manuscript, typewritten or printed statement under or over signature or seal as the case may be of this Organisation or the representative or documents or other particulars in relation to the ORDER.

## **2. SCOPE OF ORDER**

- 2.1 Scope of the order shall be as defined in the ORDER, specifications, drawings and annexures thereto.
- 2.2 Completeness of the EQUIPMENT/SITC/SETC shall be the responsibility of the SUPPLIER/CONTRACTOR. Any equipment fittings and accessories, which may be specifically mentioned in the specification or drawing (s) but which are usual or necessary for the satisfactory functioning of the EQUIPMENTS (successful operation and functioning of the equipment being SUPPLIERS/CONTRACTORS responsibility shall be provided by the SUPPLIER without any extra cost).
- 2.3 The SUPPLIER/CONTRACTOR shall follow the best modern practice in the manufacture of high grade EQUIPMENT notwithstanding any omission in that the SUPPLIER/CONTRACTOR shall in all respect design, engineer, manufacture and supply the same within delivery period to the entire satisfaction of the Organisation.
- 2.4 WORK TO BE CARRIED OUT UNDER THE ORDER

All equipment to be supplied/SITC/SETC to be executed under the ORDER shall conform to and comply with the provision of relevant regulations/Acts (State Govt. or Central Govt.) as may be applicable to the type of equipment/work carried out and necessary certificate shall be furnished.

## **3. SPECIFICATION, DRAWING, TECHNICAL MANUALS**

The SUPPLIERS/CONTRACTOR shall furnish four copies and such additional no. of copies as required by this organisation of technical documents final drawing, preservation instructions, operation and maintenance manuals, test certificates, spare parts catalogue before dispatch of the equipment as under:

- (i) Inspection Officer
  - (ii) Consignee (2 copies)
  - (iii) Purchaser
- 3.2 The supplier/contractor shall be responsible for any loss to this Organisation consequent to the furnishing of the incorrect data/drawings.
- 3.3 The SUPPLIER/CONTRACTOR shall provide cross sectional, drawing to identify the spare parts numbers and their location.
- 3.4 Specifications, design and drawings issued by this Organisation to the supplier/contractor along with tender specification and ORDER are not to be sold or given on loan. These documents continue to remain property of this Organisation. OR THEIR ASSIGNEE AND ARE SUBJECT TO RECALL BY this Organisation. The SUPPLIER/CONTRACTOR and its employees shall not make use of the drawings, specification and technical information for any purpose any time and shall not disclose the same to any person, firm or corporate authorities without written permission of the Organisation. All such details shall be kept confidential.

- 3.5 In order to facilitate quick disposal, copies of the drawing for approval shall be sent directly and simultaneously to the authorities specified in the order in addition to the sets submitted to authority issuing order.

#### **4. ACCEPTANCE OR ORDER**

- 4.1 Within fifteen (15) days from date of mailing of ORDER, SUPPLIER/CONTRACTOR shall confirm acceptance of the order in its entirety.
- 4.2 The ORDER is accepted unconditionally by SUPPLIER/CONTRACTOR by returning to this Organisation copy of the ORDER duly signed.
- 4.3 When SUPPLIER/CONTRACTOR 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.
- 4.4 Should SUPPLIER/CONTRACTOR not respect the time limit for the Confirmation of the order or in case SUPPLIER/CONTRACTOR can not accept the ORDER, this Organisation 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.

#### **5. MODIFICATION IN ORDER**

- 5.1 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 Organisation by issuing amendment to the ORDER.
- 5.2 This Organisation 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.

#### **6. JOINT AND SEVERAL RESPONSIBILITY**

- 6.1 Where Suppliers'/contractor's Equipment or any part thereof are to be used jointly with the equipment supplied by another manufacturer (the name of the manufacturer will be communicated separately to supplier) this Organisation will hold supplier and the manufacturer jointly and severally responsible for the perfect operation of the entire group or section of equipment as regard the technical and mechanical characteristics stipulated in the specification. Such responsibility shall include the mechanical coupling as well as dynamic and starting moment.
- 6.2 Consequently, SUPPLIER/CONTRACTOR shall establish and maintain all necessary contract with the manufacturer to be indicated by the organisation with a view to ensuring the exchange of all relevant data and information.

## **7. PERFORMANCE SECURITY DEPOSIT**

- 7.1 To ensure due performance of the contract, Performance Security is to be obtained from the successful bidder awarded the contract. The successful bidder, 2 weeks from the date of the issue of the letter of indent will be required to deposit Performance Security Deposit in the form of Demand Draft / Bank Guarantee/FDR from a Commercial Bank for an amount as indicated in the letter of indent. The Performance security Deposit shall be 10 % of cost of the order / contract value.
- 7.2 The security money may be deposited in the form of Demand Draft/Bank Guarantee/ FDR from a commercial bank. It should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the supplier, including warranty/guarantee obligations.
- 7.3 This Organisation shall not be liable to pay any Bank Charges, Commissions or interest on the amount of Performance security deposit.
- 7.4 Performance Security deposit shall be refunded to the supplier/contractor after completion of all contractual obligations of the supplier, including warranty/guarantee obligations. If the materials are supplied in the extended delivery period, the supplier/contractor will extend the validity of Demand Draft/Bank Guarantee/ FDR accordingly and the Security Deposit / Performance Guarantee will be released after extended validity expires.
- 7.5 For release of Performance security deposit, supplier/contractor shall submit a certificate from the consignee to the effect that the equipment has performed satisfactorily during the guarantee period as stipulated in the order and organisation has not suffered any loss or inconvenience on this account.

## **8. WARRANTIES AND GUARANTEES.**

### **8.1 MATERIALS AND WORKMANSHIP**

- 8.2 Unless some special warranty/Guarantee clause has been stipulated elsewhere in the invitation to the tender or any of its Annexure, the following warranty shall form part of the contract placed on successful tender:-
- 8.2.1 SUPPLIER/CONTRACTOR shall fully warrant that all the stores, Equipment and components supplied under the ORDER shall be new and of first quality according to the specifications and shall be free from defects (even concealed fault, deficiency in design, materials and workmanship).
- 8.2.2 Should any defects be noticed in design, material and/or workmanship within 15 months from the date of shipment/dispatch of last consignment or 12 months from the date of receipt/commissioning of the equipment, or the guarantee/warranty period as specified in specifications (Annexure IV) whichever is later, the Organisation shall inform supplier/contractor and Supplier/contractor shall immediately on receipt of such intimation, depute their personnel within 14 days to investigate the causes of defects and arrange rectification /replacement /modification of the defective equipment at site without any cost to the Organisation within a reasonable period. If the supplier/contractor fails to take proper corrective action to repair/replace the defects satisfactorily within the

reasonable period, this Organisation shall be free to take such corrective action as may be deemed necessary at contractor's risk and cost after giving notice to the SUPPLIER/CONTRACTOR.

- 8.2.3 Damage to the machinery and/or equipment due to incomplete and erroneous instructions issued by supplier/contractor will be responsibility of the supplier/contractor and will be treated according to the provisions of warranty clause. Normal wear & tear shall not come under purview of this clause.
- 8.2.4 In case defects are of such nature that equipment shall have to be taken to suppliers/Contractor's works for rectification etc. Supplier/Contractor shall take the equipment at his cost after giving necessary undertaking or security as may be required by the Organisation. This Organisation shall, if so required by the supplier/contractor, dispatch the equipment by quickest mode on "Freight-to pay" basis to the supplier's/contractor's works. After repairs suppliers/contractors shall deliver the equipment at site on freight pre-paid basis. All risks in transit to and fro shall be borne by the supplier/contractor.
- 8.2.5 Equipment or spare parts thereof replaced shall have further warranty for a period of 12 months from the date of acceptance.
- 8.2.6 The supplier/contractor shall guarantee that they will supply spare parts if and when required on agreed price. The agreed price should include but without any limitation to agreed discount on the published catalogue price or on agreed percentage of profit on the landed cost.
- 8.2.7 The supplier will warranty that before going out of production for any of spare parts, they will give adequate advance notice to the purchaser so that the latter may undertake to procure, if necessary, the balance of the life time requirements.
- 8.2.8 If the repairs, replacement or modification referred are of such nature as may affect the efficiency of the EQUIPMENT this Organisation shall have the right to give to the SUPPLIER/CONTRACTOR within one month of such replacement / renewal notice in writing to carry out test as may be required for acceptance of the equipment.
- 8.2.9 If the supplier/contractor fails to honour his obligation to repair or replace defective goods within a reasonable period of time, or if supplier/contractor refuses to carry out work under the guarantee clause and implied guarantee condition, if danger is anticipated or in case of severe urgency, the Organisation shall be entitled to carry out, at Supplier's/Contractor's cost and risk, repair work or replacement deliveries or have it done by a third party. In case not all goods have been delivered by Supplier/Contractor, this Organisation is entitled to procure the remaining goods/services at Supplier's/Contractor's cost and risk. This does not relieve Supplier's/Contractor's of any of his guarantee obligations. Taxes and duties of any kind whatever imposed by the authorities of the country of the supplier or his sub contractors until delivery shall be borne by supplier//contractor.

## **9. PERFORMANCE GUARANTEE**

- 9.1 SUPPLIER/CONTRACTOR shall guarantee that the performance of the EQUIPMENT/MATERIAL supplied under the order shall be strictly in conformity with specification and shall perform the duties specified under the ORDER.
- 9.2 The SUPPLIER/CONTRACTOR shall guarantee that the materials / equipment that shall be purchased from the sub-contractor(s) shall be such as to fulfill the requirements laid down vide para 8.1 to 8.10 above and shall undertake to ensure fulfillment of these requirement.

## **10 REJECTION**

If the ORGANISATION finds that the goods supplied are not in accordance with the specification and other condition stated in the order or its sample (s) are received in damaged conditions (of which matters this Organisation will be the sole judge), this Organisation shall be entitled to reject the whole of the goods or the part, as the case may be and intimate to the supplier/contractor the rejection without prejudice to the Organisation other rights and remedies to recover from the supplier/Contractor any loss which the ORGANISATION may be put to also reserving the right to forfeit the performance security deposit if any made for the due fulfillment of the contract. The goods shall be removed by the supplier/contractor and if not removed within 14 days of the date of communication of the rejection the Organisation will be entitled to dispose-off the same on account and at the risk of the supplier/contractor and after recovering the storage charges at the rate of 5% of the value of goods of each month or part of month and loss and expense if any caused to the Organisation pay balance to the supplier/contractor.

## **11. FAILURE AND TERMINATION CLAUSE**

Time and date of delivery shall be 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 to 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 upto maximum limit of 10% 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 10% of the contract price of the stores / SITC / SETC. After full period of extension, termination of the contract will be considered by the Organisation.
- b) Purchase or authorise the purchase elsewhere on the account and at 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 the purchaser, which shall be final, readily procurable) by serving prior notice to the contractor/supplier without canceling 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 authorise the purchase of the stores not so delivered / SITC / SETC not carried out, or others 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 lowest, where the contract is terminated at the risk and cost of the firm under 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 purchase or if there is an agreement, to purchase, such agreement is made in case of failure to deliver the stores/services, within 6 months from the date of such failure and in 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 upto maximum limit of 10% 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 / SITC / SETC will be deemed to have been carried out only when all its components, parts are also delivered. If certain components of stores are not delivered in time / SITC / SETC not carried out in time, the stores / SITC / SETC will be considered as delayed until such time all the missing parts are also delivered.

## 12. **INSPECTING/TESTING OF MATERIAL**

The inspection of stores/services/works will be carried out by the authority specified in the purchase order. The stores/works will be accepted only after the same has been found satisfactory after inspection and duly marked and sealed by the inspection authority.

- 12.1 The Supplier/contractor shall ensure that the stores/services/works to be supplied/executed against this order shall be individually inspected, tested and analysed in terms of the specifications attached to the tender and the relevant codes and practices specified therein by expression or implication. Necessary test reports shall be provided as required.

- 12.2 The Supplier/contractor should make available to the Organisation and any other individual/agency authorised by the Organisation for the purpose of inspection all its records and results in respect of inspection, test and analysis conducted by it as part of their manufacturing and testing operation under the applicable codes and practices specified by expression or implication in the tender.
- 12.3 Inspection tests and analysis shall be carried out/conducted at the supplier's/contractor's works by the authorised representative of the Organisation and the cost of to and fro air fare, accommodation and cash allowances payable to the authorised representative of the Organisation shall be borne by the Organisation.
- 12.4 The Supplier/Contractor shall provide and deliver free of charge for tests/analysis by an independent authority at any such place or places as the Organisation or its authorised inspector may reasonably require such raw material (s) used or intended to be used for the contracted work by the Supplier/Contractor as the Organisation/Inspector shall consider necessary. The cost of such tests/analysis shall be borne by the Contractor.
- 12.5 This Organisation shall be entitled at all times, whether prior to, during or after the completion of inspection by itself and/or through inspectors appointed by the Organisation at the Organisation's cost, to inspect, test and/or analyses and/or to direct the Contractor in all respect of any store(s) or materials processes used or proposed to be used in the fabrication of the product of any of them. The said inspection, tests and analysis as far as required, is to be conducted in the presence of the inspectors. The contractor shall ensure that the inspecting personnel referred to above are given free access to all the required places and information connected with their work, besides working facilities to carry out their function.
- 12.6 Should the supplier/contractor fail to comply with any of the provisions aforesaid relating to inspection, testing and /analysis the Organisation shall be entitled by itself and/or through inspectors to conduct or have conducted the inspection, test and/or analysis at the risk and expense of the supplier/contractor in all respects.
- 12.7 No rejected raw materials shall be used for the contracted work or re-tendered for inspection and/or test except with the prior permission of concerned Inspectors.
- 12.8 Unless otherwise specifically authorised by the Organisation in writing, the contractor shall not dispatch the stores under the contract entered into, any material which has not been properly inspected/tested marked and in respect of which a certificate of quality has not been issued or signed by the inspectors.
- 12.9 In addition to the general conditions of the inspection stated above, the supplier/contractor shall also satisfy all the specific conditions of inspection as enumerated in the specification attached.
- 12.10 In addition to inspector(s) the Organisation shall be entitled to nominate depute or designate a representative to be stationed at the supplier's/contractor's factory in order to supervise and/or coordinate operations related to the contract. In the event of there being more than one factory involved in the work entrusted to the

supplier/contractor, the Organisation shall be entitled to nominate/depute or appoint such representative(s) as necessary in respect of each such factory.

- 12.11 The Supplier/Contractor shall at his cost afford and ensure proper working facilities to the said representative(s) at the factory (ies) to enable him to perform his functions, and shall furnish him with all such information, data and assistance as he may require for the proper performance of his functions, and shall furnish him with all such information, data and assistance as may be required for the proper performance of his functions.
- 12.12 The posting of such a representative by the Organisation or his actions in any manner does not absolve the contractor of any liability, and/or responsibility under this contract. The representative's posting shall be treated as advisory to the Organisation.
- 12.13 For false calls for the cases where material is rejected on inspection the supplier will bear the actual cost of inspection incurred/suffered by the Organisation.
- 12.14 Place of inspections specified in supply order will not be changed without written confirmation from Purchase Authority.

### **13. SUB-STANDARD MATERIAL/REPLACEMENT OF REJECTED GOODS**

- 13.1 If the Organisation finds that MATERIAL supplied / SITC/SETC executed are not of the correct quality or not according to specification required or otherwise not satisfactory owing to any reason of which the Organisation will be the sole judge, the Organisation will be entitled to reject materials, cancel the contract and buy its requirement in the open market at the risk and cost of supplier, reserving always to itself the right to forfeit the performance security deposit placed by the supplier for the due fulfillment of the contract.
- 13.2 Rejected goods should be removed and replaced within 14 days of the date of communication of rejection.

### **14. SUBLETTING AND ASSIGNMENT**

The supplier/contractor shall not, save with the previous consent in writing of the purchase Authority, sublet, transfer or assign the contract or any part thereof or interest therein or benefit or advantage thereof in any manner whatsoever, provided nevertheless that any such consent shall not relieve the contractor from any obligation, duty or responsibility under the contract.

### **15. BREAKAGE/SHORTAGE**

Claim in respect of breakage/shortages, if any, shall be preferred on the supplier within thirty days from the date of receipt of stores at destination by the consignee which shall be replaced/made good by the supplier at his own cost.

All risk or loss or damage to the material shall be upon the supplier/contractor till it is delivered in accordance with the terms and conditions of the supply order.

#### 16. **DESIGNS, PATENTS AND ROYALTIES**

If any material used or methods or processes practiced or employed in the manufacture of items to conform with the requirement of the contract is/are covered by a patent(s) in respect of which contractor is not licensed, the supplier/contractor shall before using the material, method or process, as the case may be, obtain such license(s) and pay such royalty(ies) and license fee(s) as may be necessary. The supplier/contractor shall keep the Organisation indemnified from and against any and all claims, actions demand and proceedings whatsoever brought or made against the authorised n on the basis of any patent or infringement there of claimed or otherwise relating to and arising from any method or process employed or matter or thing done to or in connection with any work executed by the supplier/contractor shall at their own risk and defend any suit for infringement or patent or like suit brought against the Organisation (whether with or without the contractor being a party thereto and shall pay demurrages and costs awarded in such suit and keep the Organisation indemnified from and against all consequence thereof.

#### 17. **FORCE MAJEURE**

In the event of either party being rendered unable by force majeure to perform any obligation required to be performed by them under the contract, if any concluded, the relative obligation of the party affected by such force majeure lasts. The terms "Force Majeure" as implied here in shall mean acts of God, War, Civil riots, fire directly affecting the performance of the contract, floods and Acts and Regulations of respective Government of the two parties, namely the Organisation and the contractor. Both upon the occurrence of such cause and upon its termination, the party alleging that it has been rendered unable as aforesaid shall within seventy two hours of the alleged beginning and ending thereof giving full particulars and satisfactory evidence in support of its claim. If deliveries are suspended by force majeure conditions lasting for more than 2(two) months, the Organisation shall have the option of authorised this contract in whole or part at its discretion without any liability on its part.

#### 18. **LANGUAGE/TERMINOLOGY**

The supplier/contractor shall ensure the language/terminology/description of goods/services/works used in the supply order/bill/Invoice/any other documents dispatched by the supplier/contractor is **verbatim in English**.

#### 19. **REPEAT ORDER**

Repeat order can also be placed with the supplier upto 50% of the qty. of this order on the same terms and conditions as stipulated in the original supply order, during the validity of the supply order or within six months from the date of this

supply order, whichever is later. It is a condition of this order and it will be obligatory on the part of supplier/contractor to execute such repeat order(s) also as the consideration for this option on favour of the purchase forms part of the main consideration under this order.

## 20 **PACKING & MARKING**

20.1 The supplier shall consign / ship the stores in sea worthy / Airworthy / Roadworthy packing confirming to the prescribed standards in force to withstand air / ocean / land journey and ensuring the safety of cargo en-route and also arrival of material at ultimate destination in good condition. The consignment shall be comprehensively insured against all risks by the suppliers / contractors from supplier's / contractor's warehouse upto destination . Each packing case said have proper identification like name of suppliers, name of consignee, gross weight, TOP / do not turn over / handle with care.

20.2 Each package shall have a detailed packing list.

## 21. **INSURANCE**

The contractor shall insure entire equipment during transit, storage, Installation, testing, commissioning and till handing over to the consignee against losses, damages due to fire, earthquake, war, flood/ thefts etc. No claim will be admissible on this account.

## 22. **SHORT / DAMAGED / DEFECTIVE / NON RECEIPT OF MATERIAL**

The Supplier / Contractor is responsible for safe arrival of the material upto destination. Should there be any shortage / breakage of material found, the consignee, within a period of 30 days of receipt of material at destination, will lodge claim with the supplier / contractor and carriers under intimation to the Purchaser. The purchaser in question will also take up the matter with the supplier to make good the deficiency.

## 23. **Extension of Delivery Period**

In case where only portion of the stores ordered is tendered for inspection at the fag end of the delivery period and also in case where inspection is not completed in respect of the portion of the stores tendered for inspection during the delivery period the purchaser reserves right to cancel the balance quantity not tendered for inspection within the delivery fixed in the A/T at the risk and expenses of the contractor without further reference to him. If these tendered for inspection during the fag end of the delivery period are not found acceptable after carrying out the inspection the purchaser is entitled to cancel the contract in respect of the same at the risk and expenses of the contractor. If, however the stores tendered for inspection and found acceptable, the purchaser may grant an extension of the delivery period subject to the following conditions.

(i) The purchaser has the right to recover from the contractor under provision of clause 11 Annexure-II of the general condition of the contract liquidated demurrages on the stores which the contractor has failed to deliver within the DP / refixed delivery period.

- (ii) That no increase in price on account of any statutory increase in or fresh imposition of customs duty, excise duty sales tax or on account of any other tax or duty livable in respect of the stores specified in the A/T which takes place after the date of the delivery period stipulated in the A/T shall be admissible on such of the said stores as and delivered after the date of the delivery stipulated in A/T.
- (iii) That notwithstanding any stipulation in the contract for increase in price on any other ground, no such increase which take place after the date of the delivery stipulated in the A/T shall be admissible on such of the said stores as are delivered after the expiry of the D/P stipulated in A/T.
- (iv) But nevertheless, the purchases shall be entitled to the benefit of any decrease in price on account of reduction in of remission of custom duty, excise duty, sales tax or on account of any other tax or duty or on any other grounds as stipulated in the price variation clause which takes place after the expiry of the date of delivery stipulated in the acceptance of tender.
- (v) The contractor shall not dispatch the stores, till such time an extension in terms of para (i) to (ii) above is granted by the purchaser and accepted by the supplier. If the stores are dispatched by the supplier before obtaining an extension letter from the purchaser, he would be doing so at his risk and no claim for payment shall lie against the purchaser either in respect of the cost of the stores dispatch or any other expenses which the supplier may have incurred. The purchaser shall however have a right to cancel the contract in terms of clause 11 Annexure II General terms & conditions . It shall be no defense that the consignee has taken delivery of the stores dispatched by the supplier without getting an extension letter and therefore the contract has been kept alive.
- (vi) In case where the entire qty. has not been tendered for inspection within the Delivery period stipulated in the A/T and the purchaser agrees to grant extension in the period the same would be subject to the conditions (i) to (iv) as mentioned paragraph above.

**BID EVALUATION CRITERIA**

1. SALIENT FEATURES	BIDDERS CONFIRMATION
1.1 Open Tender No.	
1.2 Two Bid System	
1.3 Tender Fee	
1.4 Validity period of Bid	120 days from the date of opening i.e. upto and inclusive of date of opening
1.5 Earnest Money	As per clause 5 of Invitation to Bid
1.6 Performance Security Deposit	Would be required on placement of Letter of indent i.e. 10% of the ordered value and shall be valid for 60 days from the date of expiry of guarantee / warranty
1.7 Delivery Period	As specified in the "Invitation to Bid"
1.8 Closing date of tender	12.30 Hrs. on .....
1.9 Opening date of technical bid	15.00 Hrs. on .....
1.10 Opening date of price bid	Date as may be separately notified later.

**2. VITAL COMMERCIAL CRITERIA FOR ACCEPTANCE**

The following vital commercial conditions should be strictly complied with failing which the bid will not be considered.

2.1 Bids should be from actual manufacturers, public sector undertakings, supply houses / representatives / distributors / dealers / authorised agents / contractors with required experience in the field.

## **2.2 SUBMISSION OF EARNEST MONEY ALONGWITH BID**

The bidders must enclose with their technical bid alongwith EMD in the form of Demand Draft in favor of Chief Engineer (SZ), All India Radio & Doordarshan from an Indian Scheduled Commercial Bank . EMD by means of Bank guarantee or any other mode of payment other than DD shall not be accepted.

The amount of Earnest Money Deposit should be as per Clause 5 of "Invitation to Bid". The offers without earnest money will not be considered and summarily rejected.

2.3 Submission of Performance Security Deposit for execution of contract as well as for satisfactory performance of equipment during warranty period by the successful bidders

2.4 Acceptance of "Failure and Termination Clause", No. 11 (GTC) of Tender documents.

2.5 Acceptance of "Arbitration Clause", No.28 (Annexure-I) of tender document.

2.6 Acceptance of "Warranty and Guarantee Clause", No.8 (GTC) of tender document.

## **3. CRITERIA FOR LOADING OF BIDS**

The following criteria will be adopted for evaluation of bid :-

3.1 For delivery/completion periods quoted longer than that specified in the bid document the quoted price shall be loaded ½% per extra week or part there of. Offers with delivery/completion period longer than 3 months beyond the stipulated delivery completion period will be rejected.

3.2 Bidders will not indicate separate discount. Discount if any should be merged in the rates against the quoted items. Discount, if any, indicated separately will not be taken into account for evaluation purposes.

## **4. VITAL TECHNICAL CRITERIA FOR ACCEPTANCE OF BIDS**

4.1 Quotation in original must be from the manufacturers/authorised supply house.

4.2 In case, the bidder is an authorised dealer/supply house/contractor with requisite work experience, he should name the original manufacturer. Bidder should furnish warranty from the original manufacturer and also furnish a certificate from the manufacturer that the bidder can quote items of the original manufacturer directly. Offers not complying with these requirements will be rejected, without any notice/back reference.

4.3 Past performance report of similar items earlier supplied / similar works earlier carried out for this Organisation will be taken into consideration while evaluating this bid. The bid shall be rejected, if the past performance of the similar item earlier supplied/similar work earlier carried out for the Organisation is found to be unsatisfactory.

**ANNEXURE-IV**

**DESCRIPTION OF STORES & TECHNICAL SPECIFICATIONS**

Tender No CE(SZ)/

Due Date\_\_\_\_\_

---

<b>Sl.</b>	<b>Description of Stores/SITC/SETC</b>	<b>Qty.</b>	<b>Specification No. No.</b>
------------	----------------------------------------	-------------	------------------------------

---

Kindly refer Technical Specification (12 ) pages enclosed.

# **Technical Specifications for 3 Phase, 4 Wire, 40 kVA on line Uninterrupted Power Supply System( Stand alone)**

Specification No.: UPS\_40KVA\_JULY\_2010\_FM

## **1 SCOPE:**

The specifications are for the SITC of 3 Phase, 4 Wire, plus Ground, 40 kVA, True on-line double conversion continuous operation (defined as VFI in the IEC62040-3 UPS Specifications), solid-state Uninterruptible Power Supply (UPS) along with Battery for use in AIR FM transmitters (**power factor better than 0.9**). 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 is to be supplied with **30 minutes** back up time at full rated capacity.

**It will be the responsibility of the Tenderer to arrange for the demonstration of offered UPS at company site (preferably in Chennai) and show, practically, compliance of various parameters claimed in the tender if required by AIR.**

## **3 ESSENTIAL FEATURES:**

1. (a) The system should be fully DSP controlled in all respects (i.e. rectifier control, inverter control, display, digital diagnostics.), solid-state type, utilising 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. The DSP based controller should have following characteristics:
  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

Note: The firm shall mention the DSP chip used in the control system of the UPS.

3. The UPS should offer low input current harmonic distortion (THDI), good regulation, excellent transient response and high stability.
4. (a) The system should have a monitoring panel (LCD Based) with various types of fault alarms and metering functions including:
  - 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. a) The system should have wide input voltage and input frequency tolerance as specified in Rectifier section.

b) Transient Voltage Surge Suppressor (TVSS) (ANSI/ IEEE C62.41 1991 C1 (6KV @3KA)) 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. a) The system should have provision of protection for
  - (i) Input under voltage
  - (ii) Input Over Voltage
  - (iii) Output Over Voltage
  - (iv) Output Over load
  - (v) Output short circuit
  - (vi) Battery under Voltage
  - (vii) Over temperature
  - (viii) DC Over currentb) The system should generate aural and visual alarms for above-mentioned conditions.
9. The system should have Controls as
  - (i) Input Circuit Breaker
  - (ii) Bypass Circuit Breaker
  - (iii) Maintenance Bypass Switch
  - (iv) Inverter ON / OFF Switch
  - (v) Alarm acknowledge switch
10.
  - (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. 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 maintenance free-batteries 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.**
12. A- The battery charger should have provision of
  - (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 20°C.
13. The system should have communication port RS 232 and suitable software for monitoring & diagnostics etc. should be supplied.
14. The system should be designed with scientific forced air-cooling for proper ventilation. Acoustic noise level should be kept at minimum.
15. The UPS system output should be isolated from the DC circuit of the UPS.
16. The project, consisting of Supply, installation 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
17. The firm should specify the total area requirement for installation of the system including batteries. A floor-Layout plan should be attached.
18. 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. 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.
19. The system that shall be quoted against this tender should be capable of running continuously round the clock, seven days a week without interruption or failure.
20. Firms offering the system **should have experience of at least three years** in the installation and commissioning of ON\_LINE UPS for similar capacity on turnkey basis. **The tenderer shall enclose the user list (along with phone number, fax, email) of such installations therein clearly mentioning the name of the users/ installations, date of system installations, details of system installation completed and level of satisfaction of the user.**  
This office shall reserve the right to contact such users to cross check and obtain feedback about the system. **The tenders without the user list shall be rejected.**

21. Compliance statement should be given from the original manufacturer of the UPS on its letterhead duly signed and stamped by the OEM.
22. 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”
23. The UPS manufacturer must be ISO 9001-2000 certified company. A copy of the certificate should be enclosed with the offer.

#### 4 A. SYSTEM

1. **Technology:** The UPS shall be designed to operate as **true on-line, double conversion DSP controlled type UPS** strictly as per the definition of IEC 62040-3 as follows:

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.

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).

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.

d) **Static Bypass:**

UPS Module should have in-built 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 Deg Celsius simultaneously).
- iv. If the UPS inverter is put-off

;

2. **MTBF of the System:**

Bidder to specify and justify MTBF of the system

;

3. **Capacity:**

**40 KVA at power factor 0.9**

#### B. RECTIFIER SECTION

1.Technology	<b>DSP Controlled IGBT Rectifier with input filters to reduce the harmonics.</b>
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	> 0.99
6.Input Current Harmonic Distortion(THDi)	≤3%
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 in fully charged state)
- iv) Max. Output Voltage

**C.INVERTER.**

SI. No	Description	Required Parameters
1	Technology	Fully DSP based IGBT/PWM Inverter.
2	Output Voltage	3-phase 4-wire plus Ground
	a). Nominal	380V-415V AC (adjustable), 50Hz
	b). Static	400V $\pm$ 1% V AC, 50 Hz
	c) Output ( Active Power with load PF From 0.9 Cap to 0.9 Inductive)	36 KW
	d). Output Power Factor	0.9
3	Output Voltage Regulation:	
	a) 100% Balanced Load	$\pm$ 1%
	b) 100% Unbalance load	$\pm$ 2%
	c) Transient response (100% step loading)	<5%
	d) Recovery time to steady state( $\pm$ 1%)	< 5 msec.
4	Output frequency regulation	
	a) Line Connection:	$\pm$ 1% (metering input frequency range of 47-53 Hz)
	b) Self Connection:	$\pm$ 0.05%
5	Overall Efficiency: ( From I/P to O/P of the – U.P.S.System)	> 96% (for all loads from 50% to 100%)
6	Output voltage Distortion (at rated load)	< 1% liner load < 3% non-liner load with <b>3:1 crest factor</b>
7	Audible noise level at 1 meter	60 dBA or better
8	Overload Capacity	
	a) Inverter	Up to 125% 10 min, Up to 150% 1 min
	b) By pass Mode	Continuously up to 135% of rated current 135% to 170% of rated current for 1 min , > 170% of rated current for 2 seconds.
9	(a) Phase Displacement	120 $\pm$ 1 $^{\circ}$ for Bal. Load 120 $\pm$ 2 $^{\circ}$ for UnBal. Load
	(b) Inverter short circuit current	300% for 0.5 sec.
	(c) Protection rating	IP 20
10	RF Suppressions:	As per BIS & EMC standard..
11	Communication Interface	RS 232/C, SNMP/HTTP Network interface, modem card
12	ON-Line Battery testing	Required.
13	Mains failure Battery Low, UPS Fault	Vendor to provide Audio/Visual alarm-[also as mentioned under SI.No.3. Essential features, sub class 8 (a) at remote location (maximum distance 100 meter) in addition to local.
14	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: Voltage Current Frequency
		b, Output Side: Voltage Current (RMS value) & Peak value Frequency
		c, Intermediate DC: Voltage Current Remaining time (in minute)

		d, Bypass: Voltage Current Frequency
		e, Alarm History

#### D.BATTERY BANK & BATTERY:

1	Battery Bank Capacity	Calculation to be provided by the vender for 30 min back up
2	Nominal Output current capacity	-do-
3	No. of Battery String	1 Set Complete.
4	DC Voltage of the battery bank	Should be minimum 360 V.
5	Type:	12 V Battery of maintenance Free Valve Regulated Lead Acid (VRLA) (Please submit the catalogue of offered Battery) with its detailed specifications along with the charging & discharging characteristics ( Graphs from the OEM).
6	Backup time:	Minimum 30 minutes ( at the End of Life ( EOL) of battery for 100% load
7	Charging Voltage	Standby Use 13.5 v to 13.8v at 20°C Cycle Use 14.4 v to 15v at 20° C
8	Cut off Voltage	1.70-1.75 V per Cell (should be Selectable)
9	CODES & STANDARDS	The supplying battery manufacturer shall be ISO 9001/14001 certified. The battery design shall be of prove one technology. The manufacturer shall have 5 years of field experience.Copy of certificate for “ VRLA Battery ” must be attached with Technical bid.
10	DESIGN	All battery shall be of the same manufacturer (Make: Amar Raja/GNB/Racket/ (AGM—GEL Technology) and model. The Battery shall be “ valve-regulated” ( maintenance free)t type.
11	Life	7 Years designed life at 27 degrees C on full float.
12	Life Cycling Characteristics	Each battery shall be designed to provide 4000 cycles at 20% depth of discharge (DOD ) at 20 degrees C and 1200 cycles at 80% DOD at 20°C
13	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
14	Recharge Rate	The battery shall be capable of a 90% recharge within 12 hours.
15	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 3000m from ground level (AMSL).
16	Battery Orientation	No special ventilation shall be required under normal operating Conditions. No seperate Battery room” shall be required to house the Battery unit. Battery bank shall have clear removable covers to facilitate visual inspections and allow ease of service.
17	Self-Discharge	The battery shall have a maximum self discharge rate of 0.5-1.0% per week at 27°C.

18	Housing	The Battery System should be installed & supplied suitable Enclosure/ Gage ( Accidental & Shock proof) with M.S. Racks.
19	. 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.
20	ATP	Acceptance Test Procedure should be provided with the offer.
21	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
22	Leak Detection	Integrity of the container and post seals shall be verified in the battery manufacturing process using an automated helium leak detection process.
23	Seismic Requirements	Batteries shall be packaged in steel modules that meet Seismic requirements when stacked horizontally.
24	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.
25	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.
26	Max. Battery Charging current With Nominal load	To be specified (Battery charging current should be selectable from the front panel of UPS system up to above maximum value)
27	Warranty	The battery system should have warranty for 24 months from date of installation or 30 months from the date of Dispatch whichever is earlier.

The bidder should submit battery sizing calculation justifying following points:

- No. of Batteries
- Capacity of battery (Ah), (By considering the K factor, efficiency of system, Temperature correction factor, ageing correction factor, etc.)
- DC bus voltage

The total required area for battery installation should also be mentioned

**5. BILL OF MATERIAL (To be attached with Technical Bid without price).**

*(Bill of material must be in the format given below for technical and commercial quotes).*

Sl. No.	Description	Make	Model	Quantity
1)	40KVA IGBT/PWM based (Rectifier & Inverter), Fully DSP based Double Conversion UPS system. [(3 Phase, 4 Wire, input - 3 Phase, 4 Wire Output] as per AIR specs No. UPS_40KVA_JULY_2010_FM			
2)	Maintenance Free VRLA type Battery Bank suitable to provide 30 minutes (minimum) backup (EOL) as per tender specification. Total Battery Bank Capacity: DC voltage:12v No. of Batteries with UPS:			
3)	Remote Status display panel with interface cables			
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..			

## 6. STANDARD TERMS AND CONDITIONS FOR THE COMPLETE OFFER:

### 6.1 COMPLIANCE:

(a) A point-by-point compliance statement from the principal manufacturer in respect of all the points, sub-points and para laid down in this specification from page 1 onwards is to be enclosed along with the offer. Mere signature on a copy of our specification shall not be accepted as a compliance statement. Compliance statement in the format as indicated below only shall be accepted. The manufacturer should also record the performance figures of the equipment offered in the quote for which the compliance statement is enclosed. The figures so mentioned should be supported by highlighted record of these in the technical literature/data sheets enclosed with the tender. The data sheets should be included as desired in para 6.5 of this specification. Any deviation from the specification detailed in the compliance statement is to be highlighted separately. Offers without the proper & duly completed compliance statement are likely to be rejected with the sole responsibility of tenderer and no further claim/correspondence will be entertained. **Page no. of location of data sheet should be given in page no. Column. One copy of compliance statement and Bill of material should also be given on CD-ROM.**

Sl.No. AIR Spec.	AIR Specs	Compliance (Yes or No)	Performance fig. of equipment offered	Deviation in case of non- compliance	Optional items if any required to make the system compliant to AIR Specs.	Features in the system offered which exceed AIR Specs.	Page No	Remarks
1	Scope							
2	General							
3	Essential features (As mentioned in Sl.No.3 all items from 1 to 23,& Sl.No.4 ABC&D items)							

### 6.2 SPARES:

1. Six Nos. Of semiconductor fuses of identical rating as in the system, should be provided with the system.
2. The Necessary spares required for the maintenance of the equipment should also be quoted separately.
3. Value of such spares should not exceed 5% of the total cost of the equipment. AIR shall exercise option to Order spares.

### 6.3 ACCESSORIES:

All essential accessories that shall complete the system as desired in "Essential features" (Para 3 of the specification) should be included in the offer.

### 6.4 PRICE:

The tenderer along with the offer must quote item wise prices of all the items, which constitute the system, separately. Prices of all the optional items should also be included separately.

### 6.5 TECHNICAL LITERATURE:

- a) Two sets of technical data sheets of the equipment offered & installation, operation and service manuals shall be supplied with the equipment.
- b) One set of above shall be supplied to this Directorate along with the tender for the purpose of evaluation.
- c) The compliance of technical parameters as mentioned in para 4 of this specifications should be supported by the figures in the published data sheets of the equipment/ system.

**6.5.1 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.

**6.5.2 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.

## **6.6 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) An acceptance test procedure for the UPS system should be supplied by the firm one month in advance of the inspection of the system so that same procedure would be followed by AIR inspector for acceptance of the system.

**6.7 GUARANTEE:**

The equipment shall be guaranteed against any manufacturing defects for a period of two year from the date of supply. Any parts failing during the guarantee period shall be repaired/replaced free of charge by the supplier at the U.P.S. site.

**6.8 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.

**UPS SINGLE MODULE - SUGGESTIVE CONFIGURATION**

**FIGURE - 1**

