



SPEED POST

PRASAR BHARTI
O/o The Additional Director General (E) (South Zone)
All India Radio & Doordarsan
Swami Sivananda Salai, Chennai – 600 005.



No. ADG (E)(SZ)/PUR/65/SRMST/2011-12.

Dt.11.11.2011

Sub: Enquiry for the Supply of 1 KW Channel 23 UHF Antenna – reg.
Dear Sirs,

This office invites sealed quotations for the purchase of KW Channel 23 UHF Antenna as per the specification mentioned below:

Sl. No	Description	Qty
1	Supply of 1KW Channel 23 UHF Antenna(Horizontally polarized omni directional)	1 Nos.

1. CONSIGNEE-

The Materials will be supply to the DDE, HPT Mehaboob Nagar

- The quotation should specifically mention **Type of the items, delivery date, terms and condition of supply**. The prices should be firm and given as under.
 - The 'Unit' Price should be for the Unit as indicated in the tender enquiry.
 - Prices quoted should be for F.O.R. Station of destination in India and Inclusive of charges as packing customs, etc., wherever applicable.
- In case of Quotation of F.O.R Station of dispatch basis, the purchaser will not pay separately transit insurance and the supplier will be responsible until the stores arrive in good condition at the destination. Tender/quotation in which transit insurance has been specified as an additional item of expenditure is liable to be ignored.
- EMD**: Earnest Money Amounting to **Rs.4000/- (Rupees Four Thousand only)** in the form of Demand Draft on Nationalized Bank / Commercial Bank drawn in favour of ADG (E) (SZ), AIR & DD, Chennai-5 should accompany the tender. EMD by means of Bank guarantee or any other mode of payment other than DD shall not be accepted. Tenders without EMD shall be summarily rejected and their bid will not be opened at the time of tender opening (No exemption for

payment of EMD is accepted by this office). However exemption will be considered for the firm who will submit the proof of registration with NSIC.

5. **SECURITY DEPOSIT:** The successful Tenderer shall furnish the Security Deposit within 2 weeks after placement of order at the rate of 10% of the Order Value. The security deposit shall be furnished in the form of Demand Draft / Bank Guarantee drawn in favour of the ADG (E) (SZ), AIR & DD, Chennai-5. The Security Deposit will be returned in full on completion of successful Guarantee / warranty Period.
- 6 Printed terms and conditions of tendering firms will not be considered as forming parts of their tender.
7. **GUARANTEE PERIOD:** One year from the date of delivery.
8. **DELIVERY OF EQUIPMENTS:** The delivery of the entire Equipment at **CONSIGNEE's** site shall be completed **Two Month** from the date of placement of order. Delivery period may also be quoted separately.
9. **SALES TAX:** - Sales Tax leviable and intended to be claimed from the purchaser should be distinctly shown along **with** prices quoted. Where this is not done no claim for Sales Tax will be admitted at any later stage and on any ground whatsoever.
10. **TERMS OF PAYMENT:** - 100 % Payment on receipt of stores in good working condition at the destination.
11. The quotation should be sent in a sealed cover addressed to the undersigned, by name, so as to reach on or before **28.11.2011 12.30 P.M.**
THE COVER SHOULD BE SUPERSCRIBED WITH THE FOLLOWING:
 - a. **Material for which quotations are enclosed.**
 - b. **Reference to letter of enquiry.**
 - c. **Due date of opening quotation.**
12. The Quotations will be opened in this office at **3.00 P.M.** on **28.11.2011** in the presence of tenderers or their **agents** such as they may choose to attend.
13. **QUOTATIONS NOT PROPERLY SUPERSCRIBED WILL NOT BE CONSIDERED:**
14. The quotations submitted shall remain open for acceptance for a period of **90 (Ninety) days** from the date of opening of the Tender. If any Tenderer/Suppliers withdraws his Tender/Quotation before the said period or makes any modifications in the Terms & Conditions on the Tender/Quotation which are not acceptable to the Department, then the Government shall, without prejudice to any other right or remedy, be at the liberty to forfeit 50% of the Earnest Money as aforesaid.

15. Both your **PAN - Permanent Income Tax Account Number** and Income Tax Circle & your **TIN - Tax Identification Number** and the Tax circle should be definitely indicated in your quotation.
16. In case of supply of any Specific or Manufacturer item, the Manufacturer's Test Certificate should be enclosed with **the** supply.
17. **RIGHT OF ACCEPTANCE:** The undersigned reserves the right to reject the lowest tender or all the tenders without assigning any reasons whatsoever. Further, the undersigned reserves him self the right for decreasing the quantity of material tendered depending upon the actual requirements. The unit rate quoted on the tender shall be applicable for the quantity for which order is placed. All Quotations/Tenders in which any of the prescribed conditions are not fulfilled or are incomplete in any respect are liable to be rejected. The competent authority on behalf of President of India reserve himself the right of accepting the whole or any part of the Tender shall be bound to perform the same at the rate quoted.
18. Canvassing whether directly or indirectly, in connection with Tender/quotation is strictly prohibited and the Tender/quotation submitted by the Contractors / suppliers who resort to canvassing will be liable to rejection.
19. The undersigned also reserves the right to place **Repeat Order** for 100% or less quantity for which the quotation has been originally invited/order placed.
20. In case this is second enquiry, your Quotation in response to the first enquiry should be presumed to be valid up to 120 days from the last date mentioned in para 15 above unless we hear from you.
21. The material will be inspected authorized officer from this office before dispatch.
22. **VALIDITY:-** The tender shall be kept valid for three months (**90 days**) from the date of opening.

For further details please log in .

Web Site [http // www.cessairdd.org.in/tenders.html/](http://www.cessairdd.org.in/tenders.html/)
[http / www.allindiaradio.org/tender.html](http://www.allindiaradio.org/tender.html)
[http / tenders.gov.in](http://tenders.gov.in)

Yours faithfully,

(JOTHI VIJAKUMAR)
Assistant Engineer
FOR Addl. Director General (E) (SZ)

SPECIFICATIONS OF 1 KW UHF ANTENNA SYSTEM

1.0 Scope:

1. Doordarshan requires 1 KW UHF transmitting antenna system for Installation at Mehaboobnagar TV HPT site. This antenna will be as per the technical specification of Doordarshan given in the following clauses.
2. The antenna should be light weight, rugged, reliable, and stable in operation under Indian tropical condition.
3. The TV antenna system is to be supplied with 1 5/8" female(flanged) input connector as per the bill of material In annexure-I enclosed for commercial/technical evaluation purposes complete items of Annexure-I will be evaluated as a group and part supply will not be accepted.
4. The system should be quoted with each product's detailed specifications, Data sheets and pamphlets. Any other item/equipment, which is essential for the completeness of the system, should also be included in the offer. It will be the responsibility of the bidder to ensure that the system is complete in all respects.
5. A detailed block schematic diagram for the antenna system with all its constituent items should be provide with the offer by the supplier. Mounting arrangement is to be shown clearly and supplied with the system.
6. All Equipment assemblies, sub assemblies and components should be of latest proven design. All materials used in the antenna system should be of **Professional Broadcast Quality**.
7. Channel & Frequency: UHF Ch# 23, 486-494 MHz, Vision Carrier 487.25 MHz.

SI. No.	PARAMETER	REQUIRED VALUE
	ELECTRICAL PARAMETERS:	
2.1	Frequency Range	The antenna should be capable to operate on a specified TV Channel of 8 MHz in UHF Band IV and Band V.
2.2	Power Handling Capacity	1 KW (Average Power)
2.3	Polarization	Horizontal
2.4	Horizontal Radiation Pattern	Omni-directional
2.5	Departure from circularity	Within ± 2.5 dB
2.6	Gain with respect to half wave dipole	10 dB (Minimum)
2.7	Beam Tilt	Not exceeding 1°
2.8	VSWR	a. 1.10:1 at vision carrier b. 1.13:1 for remaining frequencies in the channel
2.9	Input Impedance	50 Ohms
2.10	Input Connector	1 5/8" EIA Flange type (Female)
	MECHANICAL PARAMETERS	
2.11	Maximum Wind Speed for Survival	160 Kmph
2.12	Type	Pole type (Antenna support structure is to be supplied along with the antenna)
2.13	Mounting on Tower	Top Mounting
2.14	Paint/Finish	Paint in light grey/white/white/ivory colour
2.15	Height	8 meter (max). To be specified by the supplier.
2.16	Weight (Dead Weight)	70 Kgs (max). To be specified by the supplier.
2.17	Wind Load at 55 m/s	305 Kg (max). (To be specified by the supplier).
2.18	Protection against lightning is to be made by providing lightning arrester on the antenna top.	
2.19	Antenna system is to be well protected against rains, so that there is no deterioration in the electrical performance of the system. For UHF slot antenna the covering material used for slot shall be such that it may not get punctured by birds.	
2.20	Antenna support structure will be galvanized and painted for protection against corrosion.	
2.21	The antenna mounting arrangement should be clearly described. The antenna should be pole mounted.	

3.0 General specification and requirements for bidders also to be complied with the offer of Antenna System.

3.1 General Requirements

- a. All the relevant technical pamphlets, data sheet drawings including Horizontal and vertical radiation patterns with description of the functioning of the system should be attached with the offer.
- b. All items/equipments required for completeness of the system should be provided with the offer.
- c. Theoretical calculation/test result of the antenna system offered shall accompany the offer. The customer has the right for verification and evaluation of the claimed parameters of the system.

3.2 Technical Literature and Manuals: The detailed description regarding the installation manual and operation & Maintenance manual is given below. One set each of complete operation & maintenance Manual along with an installation manual of antenna system is to be supplied by the supplier for the station, Zonal office and directorate and copy with the Technical offer.

a) Installation Manual: A detailed installation manual for the installation of antenna system should contain at least the following details:

- i. A line diagram for installing the antenna system.
- ii. All the sectional view of the Antenna System with dimensions are to be provided.
- iii. All unpacking/installing details of the antenna are to be provided.
- iv. The procedure of alignment, and adjustment of various assemblies, sub-assemblies of antenna system to be described in details in the installation manual.
- v. All do's and don'ts which are essential for safe installation of the antenna system should be described in the installation manual.

b. Operation and Maintenance Manual: A detailed operation and maintenance manual with all drawings, assembly, subassemblies is to be provided. All relevant technical pamphlets, data sheets, drawings, block diagram, along with operation & Maintenance Manual of the antenna system should be attached with the technical offer for the purpose of evaluation.

c. The details of all electrical parameters along with their write-ups are to be provided in this manual.

d. All Precautions and detailed instructions regarding operation of the antenna system should be provided in this manual.

e. 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 antenna should be provided in the manual.

f. Details of 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.

g. The list of all parts/components/assemblies/subassemblies with their part numbers is to be provided in this manual.

h. The details of ordering specifications for all parts/components/subassemblies/PCBs/units should be listed in this manual to facilitate reordering of spares as and when required during the life time of this antenna system.

i. The operating manual should have description regarding various interfaces connectors, connecting cables and accessories required for the satisfactory function of the antenna system.

3.3 Guarantee: The manufacturer shall guarantee for 27 months from the date of supply (or 24 months from the date of installation, whichever is later), the working of TV antenna System, without any fault and defect Any defect/failure of equipment component or assembly and non-performance in the period is to be set right by the manufacturer free of costs at the **premises of the consignee.**

3.4 Experience: The manufacturer must have experience for manufacture and supply of similar type of equipment. The manufacturer has to attach with the offer the details of its past supply record, of similar type & power antenna system to the various broadcast organizations. The address and Telephone no of the broadcasting organization to whom the same type of antenna system has been supplied should also be provided with its past supply record past performance of supplied antennas to Doordarshan/other broadcasting organization shall form a critical criterion for accepting or rejecting the offer.

3.5 Local Office for after sale support: The antenna manufacturer shall give the address of his local office/representative in India to facilitate interaction. In case any module of antenna requires repairs at factory, the same would be handed over to his Indian representative in India, who would arrange export of module to factory and re import in India after repairs/replacement. After sales service for maintenance and repairs in India is an essential requirement of this tender without which the offer may be rejected. Transportation charges if any shall be borne by the supplier during guarantee period.

3.6 Inspection:

a. The inspection of Antenna System at the firm's premises before the dispatch of the antenna system shall be performed by DD Inspectors. The firm has to intimate Doordarshan one month in advance when the

antenna is ready for inspection. The detailed "acceptance Test Procedure" (ATP) for testing the antenna system for its performance as per the specifications should also be attached with the offer which is to be used at the time of inspection at the factory. All the test and measuring equipment required for the acceptance test procedure has to be arranged by the supplier/manufacturer at his premises. All expenses towards traveling boarding & lodging of Doordarshan inspector shall be borne by Doordarshan.

b. The test report of wind load and maximum wind speed for survival must also be submitted with the offer.

c. The material test report of the material used in antenna must also be submitted.

3.7. Bill of Material:

a. A detailed, complete bill of material (deliverable) shall be attached with the technical offer leaving price column blank. This bill of material will be exactly the same which has been given in the commercial offer. Make, model and quantity of each item must be mentioned. Breakup prices for all items/equipment should be provided in the commercial/price bid.

b. The bidder must quote the complete antenna system as per the list of items provided in Annexure-I. The complete system integration for all items must be guaranteed by the bidder for its working as per the requirements & specification of Doordarshan.

3.8. Compliance Statement: A para by Para compliance statement in the form of a table describing DD Specifications, of the manufacturers quoted items and remarks should be attached with the offer by the manufacturer only on the letter head duly signed by OEM but not by the agent or representative of the manufacturer with relevant supporting literature, manuals etc. the compliance statement is to be submitted for all technical as well as general specifications for all the paras listed above in the technical bid including all the requirements including "scope" and "General technical requirements" of these specifications. This is a mandatory and essential requirement.

ANNEXURE-I

SUGGESIVE BILL OF MATERIALS

SI. NO.	Item Description	Quantity	Rate/Amount
1.	1 KW UHF Transmitting Antenna as per Doordarshan Specs. Breakup details of the system must be given with Qty.	1 Set.	
2.	Antenna Mounting Arrangement Hardware (Top Mounting)	1 Set	
3.	Lightening Arrester	1 No.	
4.	Any other Item to complete the system. Breakup details of the system must be given with Qty.	1 Set.	