



प्रसार भारती
Prasar Bharati
कार्यालय अपर महानिदेशक (उत्तरी क्षेत्र)
Office of the Additional Director General (N. Z.)
आकाशवाणी एवं दूरदर्शन : जामनगर हाउस, नई दिल्ली- 110011
Akashvani & Doordarshan , Jamnagar House
New Delhi – 110011



No .Hamirpur2V/3/2017/SDB/Inst.

Dated 20-06-2017

To

M/s. _____

Project: **Installation of 5 KW FM Transmitter at AIR Hamirpur**

Subject:-SITC of SDB at **AIR Hamirpur(HP)**

Dear Sir,

Please furnish your quotation for the stores/works mentioned in the enclosed quotation form. Your quotation should fulfill the following conditions:-

Quotation should be sent in an envelope sealed with wax. The cover should be super scribed with the following details:-

• **Material for which the tenders are enclosed.**

• **Reference to the letter of enquiry.**

• **Opening date of quotation.**

• **EMD of Rs.2000/- enclosed**

The quotation will be in **Two Parts:-**

Part-I: Rates

One sealed envelope would be submitted which should contain only rates. The envelope cover should be clearly marked **'RATES ONLY'**. Break up prices for all Items/Equipment's should be provided in the **commercial/price bid**.

Part-II: Eligibility :

i) EMD

ii) Statuary registration Copies VAT/Service tax/ PAN etc as applicable.

iii) Past Experience records for last three years for similar works or stores.

iv) Details of make/models offer layout plan/3d views Submission etc. along with specification.

The rates shall be opened only for bidders who fulfill eligibility criteria.

Another sealed envelope should be submitted which will contain:

- The **Price Bid will** be opened on the same day or as decided on the date of opening of the tender after opening of eligibility bid.

The envelope should be addressed to the **undersigned** so as to reach him up to 12:00 Hrs. on or before **10-07-2017**

The quotation will be opened on same day at **15:00 Hrs.** in presence of those tenderer or their agents who may choose to attend. Quotation received without proper was sealing may be rejected. Tenders with entries as extra without giving details may be rejected. Any additional charges if claimed after opening the tender will not be admissible.

- **Sales Tax/VAT:** The tenderer should quote Sales Tax/Vat separately. They should furnish a copy of their Sales Tax/Vat Registration certificate & PAN along with their quotation. Tender simply mentioned with sales tax included without giving details may be rejected.
- **Excise duty:** The tenderer should furnish the excise duty charged by them separately in clear terms wherever applicable.
- **Terms of Payment:** (a) 100% payment after supply of material in good condition & work done satisfactory.
- **Sample:** The firm should send a sample whenever it is possible. The item quoted should be ISI marked if available. The equipment is subject to pre-dispatch inspection.
- **Validity:** Tender should remain opening for acceptance for period of three months from the date of opening.

- This office reserves the right to accept any quotation not necessary the lowest. Further this office reserves the right of increasing/decreasing the quantity of the material of tender depending on actual requirements. The unit rate quoted in tender shall be applicable to the quantity for which the order is placed.

- The complete technical details required as per our specification should be furnished along with tender. Relevant drawing/photographs may also be sent.

- The quotation not fulfilling condition under paragraph A, B, C, D, E and K be summarily rejected without any further reference.

- The earnest money deposit (EMD) of **Rs 2000/-** should be submitted along with tender in the form of DD/Pay Order/FDR payable at New Delhi in favour of **CE (NZ), AIR & TV, New Delhi**.
- ADG (NZ), AIR & Doordarshan, Jamnagar House, New Delhi-110011, reserves to himself the right to accept/reject any or all tenders without assigning any reason whatsoever.
- **Liquidated Demurrage:** If the supplier/contractor is unable to complete the supply of stores/execution the work within the stipulated time limit, the indenter may, at his own discretion allow such additional time as he may consider justified without liquidated demurrage and without altering any other terms and conditions of the order. In the event of the failure or the contractor to complete the supply of stores/work within the stipulated time or extended time, the CE(NZ), AIR & TV, Jamnagar House, New Delhi shall have the right to impose a liquidated demurrages @ **half percent (0.5%) per week** or part thereof the order values or part thereof. The contractor's liability for delay, however shall not exceed **10%** of the ordered/contract value.
- The tender should produce the cost break up as prescribed in quotation form otherwise tender will be rejected.
- **Arbitration:** All disputes, differences or question including the subject matter of the contract on the rights and liabilities of the parties, hereunder of howsoever arises between parties except those, the decision thereof is herein before otherwise expressly provided for shall be referred to the sole arbitration of the ADG (NZ) AIR & DD, New Delhi or any person nominated by him and his decision shall be final and binding on the parties. The provisions of Arbitration and Conciliation Act, 1996 or any statutory modifications or reenactment thereof and the rules made there under for the time being in force shall apply to such arbitration. The arbitration proceedings shall be held in New Delhi.
- **Inspection & Inspection Authority:**
- **Inspection:** The equipment will be inspected by the indenter of his authorized representative at manufacturer's work place before dispatch in accordance with various standards/procedures specified in tender specifications Annexure-1 or modification thereof that may be carried out by the indenter in consultation with supplier. Supplier shall intimate the indenter in advance about readiness of system for inspection at a date mutually agrees upon by the indenter and supplier.
- The equipment will be accepted only after meeting the Specifications/conditions stipulated in tender documents and as per annexure-1 or modification that may be carried out by the intender in the consultation with contractor.

(Narendra Singh)
INSTALLATION OFFICER
For The Additional Director General(NZ)



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New Delhi – 110011



No .Hamirpur2V/3/2017/SDB/Inst.

Dated 20-06-2017

Quotation Form

Project: **Installation of 5 KW FM Transmitter at AIR Hamirpur(HP)**

Subject: **SITC of SDB at AIR Hamirpur(HP)**

Please read carefully the terms and conditions given the enquiry form attached to the quotation form.
Last date of receipt of quotation in this office: 10-07-2017 up to 1200 hrs.

S.No.	Description of stores	Qty.	Rate	Total Price
1.	SITC of SDB at AIR Hamirpur as per Drawing NoTP16302 ,Schedule of requirement& Specs enclosed P -1 to 8.	1 No		
2.	Decommissioning & dismantling of old SDB and keeping it's at New Location for creating space for installation of New SDB including interim arrangement if any.	1 No		

Note –All required material for above work shall be provided by tendere .Work at the site will be done in consultation with the Installation Officer,during off transmission hours. Road permit, Electricity ,Water, residence/local transport etc. to be arranged itself by the contractor. Contractor will be held responsible for any loss/Damage of equipments/Govt property during the work **EMD, Rs 2000/, DD in favour of of Chief Engineer (NZ),AIR & Doordarshan,New Delhi should be enclosed along with the tender.**

1. Excise Duty, Sales Tax/ VAT

2. (a) Sales Tax/Vat No. _____ (b) PAN

No. _____

3. **Packing**, Forwarding & transportation charges shall be included. No separate charges will be paid on this account.

4. Delivery period:- **Two months from date of order**

5. Consignee:- **I.O. AIR Hamirpur(HP)**

6. Validity:- **Three Months**

7. Guarantee:- **One year from the date of handing over to the (stores)/Completion of work.**

8. **Terms of Payment:** 100% payment after completion of work at site.

9. **Declaration:** We declare that all the conditions as given the enquiry have been read by us and are acceptable.

Date.

Name (in capital) _____

PRASAR BHARATI
O/o ADDL.DIRECTORATE GENERAL-E(NZ)
ALL INDIA RADIO& DOORDARSHAN
NEW DELHI

Specification SDB For hamirpur

SPECIFICATION FOR SITC of L.T. PANEL FOR AIR Hamirpur.

These specifications cover the technical requirements for SITC of SDB at AIR Hamirpur under various Replacement scheme

GENERAL CONDITIONS

1. SCOPE

This section covers design, fabrication, and transportation to site, assembly, inter-connections, erection, testing and commissioning of Low Tension (L.T.) switch board panels at AIR Station as per requirements given in **Section-II**. The LT Panel shall be located in as indicated in the drawing No. TE-16581. The panels shall meet all other relevant statutory regulations of State Electricity Board/ Authority including that of local Electrical Inspector.

2. GENERAL CONDITIONS OF CONTRACT

- 2.1 Payment terms, taxes and duties, insurance cover, validity, tender acceptance, initial inspection at manufacturer/tenderer's works, transportation /dispatch of materials, testing and commissioning of equipment after installation and final inspection at site, guarantee terms, delivery period (completion period for SITC), penalty for delay and other commercial terms would be applicable as per All India Radio (AIR)'s terms and condition on the subject.
- 2.2 The offered Panel shall conform to the Technical Specifications as given in various sections of this specification. Should a tenderer desire to depart in any respect from the given specifications either on account of manufacturing practice or for any other reason, he must specifically bring out the modifications in a covering letter explaining in detail each and every departure he proposes to make. Unless otherwise stated, the equipment offered shall be deemed to satisfy these specifications.
- 2.3 The Panel shall be designed for efficient and trouble free service for long periods of continuous operations. The units shall be designed for easy maintenance, repairs/replacements and complete safety to operating personnel. All materials used in the construction shall be of high quality and conform to the relevant IS specifications.
- 2.4 The switchboard offered shall be capable of withstanding rigorous use and rough handling including during transportation.
- 2.5 The tenderers are advised to visit the site before submitting their offers.

3. COMPLETENESS OF CONTRACT

All sundry fittings, assemblies, accessories, hardware items, foundation bolts, nuts, terminal lugs for electrical connection and cable glands, which may not have been specifically mentioned or which the Tenderer may not explicitly mention in his tender but are useful and necessary for proper assembly, installation and efficient working of the various components of the work, shall be deemed to be included in the contract and shall be provided by the contractor without any extra charges. Such items shall be deemed to be included within the rates quoted unless otherwise specifically indicated in the tender.

4. TECHNICAL DOCUMENTATION (TO BE SUBMITTED ALONG WITH TENDER)

The tenderer must submit the following documents along with the tender. Tender without documents shall be rejected.

- i) Detailed printed literature of various components used in fabrication of Switch Board Panel.
- ii) Complete schedule of material
- iii) Exact dimension details & Mounting arrangement for various Panels & Distribution Boxes (DBs)
- iv) Proposed Time schedule for completion of SITC work.

5. TECHNICAL DOCUMENTATION (TO BE SUBMITTED AFTER ACCEPTANCE OF TENDER)

The successful tenderer shall submit the following within three weeks of acceptance of the tender for approval. Two sets will be returned after approval.

- i) Six copies of the drawings showing the physical arrangement and dimensions, location of accessories, circuit identification markings, nameplate etc.

6. TECHNICAL DOCUMENTATION (TO BE SUBMITTED AT TIME OF DELIVERY)

Following documents shall be supplied to the consignee along with equipment at the time of delivery:

- i) Two copies of the book of instructions & drawings regarding installation, testing, operation and maintenance and servicing of the switchgear together with all the relevant data sheets, spare parts catalogue and workshop procedure for repairs, assemblies and adjustments.
- ii) Two sets of finalized drawings showing dimensions and other fixtures of the switchboard.

7. INSPECTION

The successful tenderer will have to get the switch board inspected by a person authorized by this office at his (tenderer's) workshop/factory before dispatch.

8. DELIVERY

The entire work of SITC including design shall be completed within a period as specified in order & effective from the date of acceptance of the tender and shall be independent of any other factors.

9. GUARANTEE

- i) The tenderer shall offer at least one-year guarantee from the date of commissioning and satisfactory acceptance (handing over) of the installed switchboard panels (equipment/ components including associated wiring /cables) by the indenter.
- ii) All equipment/components and associated cables/wires that may fail during the guarantee period due to faulty design, manufacturing, assembly, or poor workmanship shall be replaced at site free of charge by the tenderer.
- iii) All repairs shall be done promptly within a reasonable period, say 48 hours, after the information is given on telephone or writing by the indenter/ consignee.

10. ERECTION

- i) The tenderer/contractor is required to design, supply, install, test and commission the switchboard at site as a **complete work-contract**. The contractor shall do all internal wiring of switchboard including the supply of control cables. The tenderer shall terminate main incoming cables from distribution transformer and essential supply from diesel generator.
- ii) The tenderer shall also have to arrange transportation for inspection & certification for handing over the same to the AIR.
- iii) All electrical works shall be carried out in accordance with various CPWD General Specifications for Electrical Works Part-I (Internal) 2005, Part-II (External) 1995, and Part-IV (Sub-stations) 2007 as amended from time to time and in accordance with Indian Electricity Rules, 1956 and Indian Electricity Act, 1910 amended up to date.
- iv) The tenderer shall be responsible for storage of all equipment and materials brought to site from time to time and their safe custody at site till the switchboard panels are handed over to the indenter/his representative.
- v) The tenderer shall indemnify and hold harmless the indenter against all claims in respect of injury to any person howsoever arising out of erection of the equipment in course of such installation. The tenderer shall discharge all his obligations under the Indian Workmen's Compensation Act in so far as it affects workmen in his employ.
- vi) The tenderer and his employees will submit to the regulations in force for controlled entry into the premises where the said equipment is to be installed.

- vii) If the tenderer or his workmen or servants shall break, deface, injure or destroy any part of the building in which they may be working, or any building, road, road kerb, fence, enclosure, water pipe, cable, drains, electric or telephone posts or wires, trees, grass or grasslands in the premises on which the work or any part of it is being executed, the tenderer shall, upon receipt of a notice in writing on that behalf, make good at his own expense, or in default, the indentor may get the same rectified and deduct the expenses from any amount that may be then due or at any time thereafter may become due to the tenderer or from his security deposit.

SECTION-II
SCHEDULE OF REQUIREMENTS

1. Name of the Place where the : AIR Hamirpur (Transmitter Site)
Sub distribution Switchboard is required

2. Details of Switchboard Panels required for SITC

S. No.	Description of Stores / Works	Quantity		
1	2	3		
1.	SITC of SDB size 750 mm x 800 mm x 200 mm made of CRCA Sheet 2 mm thick, powder coated (In one Cubical) consist of	1 No		
	(a) 415V, 3 Phase, Four wire, 200 A Bus Bar Aluminium	1 Set		
	b. Indicating Lights (RYB)	1 Set		
	c. CT	1 No		
	d. Voltmeter Digital readout	1 No		
	e. Ammeter Digital readout	1 No		
	f. Connection connector, 30 nos	1 set		
	g. MCCB (TPN 100A, I _{cu} > 35kA, AO, FS)	1 no		
	h. MCB TPN 32 A 4 Pole	2 nos		
	i. MCB SPN 16 A	5 nos		
	j. MCB SPN 10 A	5 Nos		
	K. MCB 2 A TPN	1 no		
2	Decommissioning & dismantling of old SDB and keeping it's at New Location for creating space for installation of New SDB including interim arrangement if any.	1 Job		
	Note – MS copper cables & lugs of proper size to be provided by the contractor for inter connection in the SDB.			

DETAILED TECHNICAL SPECIFICATIONS

1. General

1.1 All the materials to be used in the work shall conform to the following specifications.

- a. CPWD general specification for Switchboard Work.
- b. The materials should conform to IS Specifications and should be ISI marked.

1.2 The tenderer shall use following makes of the materials in the work. The actual make offered by the tenderer is to be clearly mentioned in the tender. If more than one make are offered, then it will be *open to the indenter to choose any one of the offered makes while placing work-contract.*

▪ MCCB	SIEMENS/SCHNEIDER ELECTRIC/L&T
▪ MCBs	SIEMENS/SCHNEIDER ELECTRIC/L&T
Frequency Meter, Ammeter, Voltmeter	L&T/AE/KAYCEE
▪ C.Ts	L&T/AE/KAYCEE
▪ Power cables	GRANDLAY/FINOLEX/SKYTONE/HAVELLS
▪ Thimbles	JAINSONS/ACTION/DOWELLS
▪ LED Indicating Lights	SIEMENS/SCHNEIDER ELECTRIC/L&T
▪ Paints	ICI/ASIAN/NEROLAC

In case the particular make of the material mentioned above is not available at the time of execution, the indenter or his authorized representative will approve the alternative make of materials.

1.3 The switchboard shall be indoor type, Wall mounting, compact, metal clad, totally enclosed and readily extendable on both sides, having in it all switches and accessories and completely factory pre-wired.

1.4 All the MCCBs, MCBs, indicating Lights, DBs shall be of single make.

2. Constructional features

3. Bus Bars

3.1 Single piece, air insulated bus-bars of hard drawn high conductivity electro type copper or equivalent aluminum rated for the current indicated in the schedule of requirements and corrected for an ambient temperature of 50 degree C and conforming to Grade E91E of IS 5082 as amended to date shall be provided.

3.2 The bus bar shall be capable of carrying the rated current at 415 Volts continuously. The bus bars shall be designed to withstand the temperature rise of 45°C above the ambient.

3.3 Bus bars shall be supported on unbreakable, non-hygroscopic supports rigidly held to the framework of the chamber so as to withstand thermal and dynamic stresses during system short circuits/fault conditions. They may be insulated individually with an approved non-deteriorating insulating material such as empire tape or sleeved with heat shrinking PVC sleeves to make it dust proof. Phase identification with colour tape also is to be provided.

3.4 The neutral bus bars should be insulated with provision for earthing at one point. Required clearances of bus bars shall be maintained. (Between phase-to-phase - at least 32 mm and between phase and neutral at least 36 mm.)

3.5 The bus bars shall have uniform section throughout the length of the switchboard. The cross section of neutral bus bar shall be same as that of phase bus bar of the capacities up to 200A. For higher capacities of bus bar, the neutral bus bar shall have cross section of at least 50% of the phase bus bar.

3.6 Red, Yellow & Blue indicating lights on the front panel shall be provided on the bus bar chamber to indicate the presence of phase voltages.

4. MOULDED CASE CIRCUIT BREAKERS

4.1 All the live parts of MCCBs shall be enclosed in an insulated moulded housing. The operating mechanism should be quick make, quick-break. Three-phase MCCBs shall have a common operating handle for simultaneous operation and tripping of all three phases. It should be independent of manual operation and conform to relevant sections of IS-13947.

5. Indicating Instruments and Meters

- 5.1 The meters (Ammeter/Voltmeter/Frequency Meter) shall be Digital with 3.5 Digit Display. Meters shall be of 96mmx96mm size. The meters shall meet the various IS Specifications.
- 5.2 The meters/instruments shall have Instrument transformers wherever needed.
- 5.3 Current transformers shall conform to IS 2705 (Part III) as amended to date having rated burden of 10 VA and class I accuracy.
- 5.4 Electromechanical Phase sequence meter shall be of size 96mmx96mm.

ANNEXURE -I

Performa for Technical Information to be furnished by the tenderer (To be filled up and submitted by Tenderer along with Tender)

S.No	Item	Tenderer Information
1	Constructional features of the switch board	
i)	Overall Dimensions of the switchboard offered. (Length x Depth x Height in mm)	
ii)	Thickness of the sheet used in mm	
a)	for the front panels.	
b)	for the back panels.	
c)	for the side and top panels	
d)	for bottom and top panels/covers	
e)	for the mounting frame	
iv)	Material of the sheet used for the switchboard.	
v)	Whether the sheets used in the cubicle has undergone the process of degreasing, pickling in acid, cold rinsing & phosphatising?	
vi)	Whether anti corrosive primer and heat resistant synthetic enamel paints are used over the cubicle sheet?	
vii)	Whether the switchboard is provided with removable bottom plates?	
viii)	Whether the switchboard has been made dust free and vermin proof? Specify the arrangements provided for the same.	
ix)	Whether the switchboard is complete with interlocking arrangements?	
x)	Whether the switchboard conforms to safety standards and offers high degree of protection to operating personnel as per relevant ISI and Indian Electricity/ CEA rules.	
2	Bus Bars	
i)	Specify the material of the bus bars used and the type of insulation provided.	
ii)	Specify the size of the bus bars used.	
iii)	Whether bus bars are rated as per schedule of requirements?	
iv)	Specify the clearance provided between bus bars.	
a)	phase to phase	
b)	phase to neutral	
c)	between bus bars and cubicle panels	
v)	Specify the insulator used for supporting the bus bars.	
3	Moulded Case Circuit Breakers	Tenderer Information
i)	Make & Model No of each MCCB	
ii)	Whether the MCCBs offered meet all the specifications?	
iii)	Whether the MCCBs offered are rated and have been tested as per specification . (Test certificates from the original manufacturers are to be attached)	
7.	Provide Guarantee Details.	
8.	Whether the freight charges including insurance for delivery of switchboard to the destination specified in the schedule of requirements have been included in the price of the switchboard offered?	
9.	Whether the installation material necessary for mounting the switch board at site have been included and charged for in	

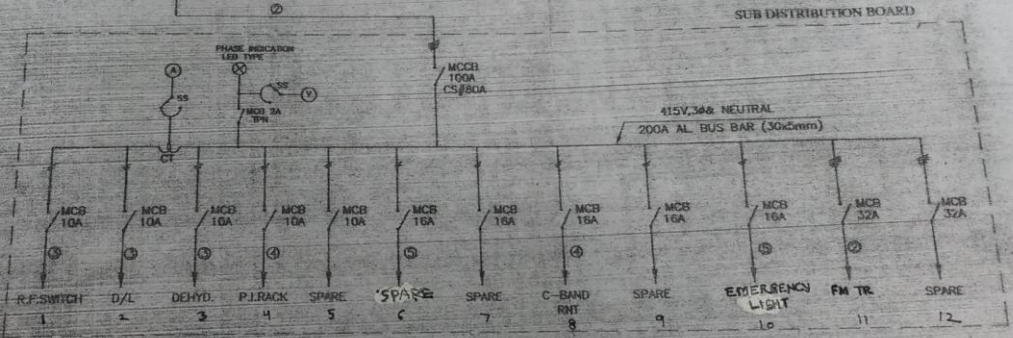
	the offer?	
10.	Whether two copies of the operation & maintenance and servicing manuals for the various components used in the switchboard will be supplied free of charge, along with the switch board? If not, cost of the same may be indicated separately	

POWER SUPPLY SCHEMATIC

[2X3 KW FM TRANSMITTER NON COSITED WITH M.P. STUDIO

APPLICABLE TO 6 KW FM TRANSMITTERS NON COSITED WITH M.P. STUDIOS UNDER 1ST PLAN)

30KVA
 30KVA
 30KVA
 UPS



1. To 1P - 16302
 MCB 1 to 10 SPN
 MCB 11 to 13 TPN

[Handwritten signature]