

POLICE TELECOM HQs, MADHYA PRADESH
Bhadbhada Road, Bhopal-462 003
Fax No. 0755-2443674, E-mail: sspradiompbpl@gmail.com



e-Tender
(Revised RFP as per Pre Bid Query Response)
For

Design, Supply, Installation and Commissioning of UHF Digital Radio Trunking (APCO-25 Phase II/ DMR TIER –III) System on “Turn-key” Basis for Bhopal District

(No.: PDM/ Pur./UHF/Trunking/Bhopal/F- 408-H/2022, Date:04/08/2022)

Documents download/Sale Start Date	- 25/05/2022 from 1800 Hrs.
Bid Submission Start Date	- 05/08/2022 from 1800 Hrs.
Bid Submission End Date	- 20/08/2022 up to 1700 Hrs.
P.Q. Bid will be opened on	- 22/08/2022 at 1200 Hrs.

Director General of Police
Through- SSP (Radio)
Bhadbhada Road, Bhopal, MP.
Phone: 0755- 2443674
Fax: 0755- 2443674

Table of Contents

Reference :Notice Inviting Tender (NIT) in English	4
Section I: Invitation for proposal	5
1.1 Definitions	5
1.2 General conditions	5
1.3 Tentative Bid Schedule	7
1.4 Validity of Tender Bid	8
1.5 Pre-Qualification(PQ)/Eligible Criterion	8
Section II: Instructions to Tenderers	9
2.1 Procedure for submission of proposals	9
2.2 Language	10
2.3 Earnest money deposit	10
2.4 Pre-Bid Queries	10
2.5 Documents comprising the bids	10
2.5.1 PQ Bid Documents	10
2.5.2 Technical bid Documents	11
2.5.3 Financial bid Documents	11
2.6 Procedure of finalisation of Bids	11
2.7 Ethical conduct of the bidder	13
2.8 Tendering process flow	14
Section III: Terms and conditions	15
3.1 Delivery period	15
3.2 Standard of performance	15
3.3 Packaging	15
3.4 Acceptance testing and inspection	15
3.5 Right to vary quantities	17
3.6 Consideration –payment terms:	17
3.7 Penalty clause	18
3.8 Termination for default	18
3.9 Suspension	18
3.10 Tenderer’s local service centre & personnel	19
3.11 Property and risk	19
3.12 Arbitration	19
3.13 Right of inspection	19
3.14 Patent, copyrights, design, Intellectual property rights and Indemnity Liability	19
3.15 Assignment & subcontracting	19
3.16 Warranty / maintenance	20
3.17 Registration with GST	20
3.18 Other conditions	20

3.19	Security Deposit	20
3.20	Agreement	20
Section IV: Scope of Material and Technical specifications and work		21
4.1	Scope of work	21
4.2	Place of supply & work	21
4.3	Minimum Technical specifications of Equipment	22
4.3.1	Technical specifications of APCO-25 Phase-II Technology as per given BOQ Annexure-A	23
4.3.2	Technical specifications of DMR Tier -III Technology as per given BOQ Annexure-B	30
4.3.3.	POLICE RADIO DISTT.BHOPAL CITY STATION Annexure-c	39
Section V: BID Proposal FORMS		41
(Documents of Pre-Qualification Bid Envelope)		
Form- I:	Bid Proposal sheet	41
Form- II:	Particulars and Financial Status	43
Form- III:	PQ/ Eligibility Conditions	45
Form- IV:	Financial status (Turn over)	46
Form- V:	OEM Authorization	47
Form- VI	Undertaking	48
Form- VII:	Declaration	49
Form- VIII:	Non-Malicious code ©right certificate	50
Form – IX:	Performance Statement	51
(Documents of Technical Bid Envelope)		
Form – X:	Bill of Quantity (for Item no.1,2,3 and 4)	52
Form – XI:	Technical compliance statement	53
Form – XII:	Technical Personnel Statement	54
Form – XIII:	Deviations statement	55
(Documents of Financial Bid Envelope)		
Form – XIV:	Financial Bid for Item no. 1	56
Form – XV:	Price list of Spare Parts	56
	Notice Inviting Tender (NIT) in Hindi	57

POLICE TELECOM HQs, MADHYA PRADESH
Bhadbhada Road, Bhopal-462 003
Fax No. 0755-2443674, E-mail: sspradiombpl@gmail.com

NIT No: PDM/ Pur./UHF/Trunking/Bhopal/F- 408 /2022, Date: 25 /05/2022

(Revised RFP as per Pre Bid Query Response)

Notice Inviting Tender

e-Tenders are invited by Senior Superintendent of Police (Radio) MP Bhopal on behalf of DGP MP Bhopal for the following items :-

S.no.	Name of Item	Tender Fee	Required EMD
1	Design, Supply, Installation and Commissioning of UHF Digital Radio Trunking System on “Turn-key” Basis for Bhopal District		
a	APCO-25 Phase-II Technology as per given BOQ Annexure-A	30,000/-	40,00,000/-
	OR		
b	DMR Tier-III Technology as per given BOQ Annexure-B		

1. Cost of tender documents (Tender Fee) is non-refundable and cannot be exempted in any condition.
2. The Tender should be submitted online on website <https://www.mptenders.gov.in> in favour of SSP (Radio) MP. Bhopal within scheduled date and time. Tender fees and EMD should be deposited online through the website.
3. Tender documents also available for ready reference on the website of MP Police (www.mppolice.gov.in).
4. This is a “Turn key” Project.

5. Schedule:-

Documents download/Sale Start Date	25/05/2022 from 1800 Hrs.
Bid Submission Start Date	05/08/2022 from 1800 Hrs.
Bid Submission End Date	20/08/2022 up to 1700 Hrs.
P.Q. Bid will be opened on	22/08/2022 at 1200 Hrs.

Sr. Superintendent of Police (Radio)
Madhya Pradesh, Bhopal

SECTION I. Invitation for proposals

1.1 DEFINITIONS:

In this document, unless otherwise mentioned or expressed clearly, the terms ‘Competent Authority’, ‘Tenderer’, ‘Bidder’, ‘Committee’ and ‘Supply of Equipment’s’ would have meaning as given below:

Competent Authority: A.D.G.P. Telecommunication M.P.

Tenderer or bidder: The Firm/Company who buys the tender document, signs and submits the Tender document and bids for the contract and/or awarded the Contract to implement Tender for **Design, Supply, Installation and Commissioning of UHF Digital Radio Trunking (APCO-25 Phase II/ DMR TIER –III) System on “Turn-key” Basis for Bhopal District**, as the reference may indicate; it shall also include associates, license, collaborator, and agents.

E-Tender: -means electronically bid submission on the website <https://www.mptenders.gov.in> with due procedure.

Committee: Committee means committee(s) constituted by M.P. Police in relation to this process and includes Police Telecom Headquarters Technical Committee and Police Headquarters Central Purchase Committee as appointed by DGP MP, for the purpose of this Tender and Supplies Test & Acceptance Committee as appointed by ADGP (Telecom).

The Supply of Wireless Set (hereinafter referred to interchangeably as the “UHF Digital Radio Trunking (APCO-25 Phase II/ DMR TIER –III) System or the “Items” or the “Goods”) includes: - Supply of **UHF Digital Radio Trunking (APCO-25 Phase II/ DMR TIER –III) System/** Wireless Sets with accessories as per the Technical Specifications [**Section-IV, clause-4.3**] in this document, for use at Bhopal District

Warranty: -Warranty period of all Wireless sets & accessories supplied except batteries shall be three years from the date of final acceptance where as warranty period for batteries shall be 18 months from the date of final acceptance.

Purchaser: Purchaser means MP Police working through Police Telecommunication Branch PHQ.

Vendor/supplier: means the tenderer who has been declared the successful tenderer (bidder) and has been offered to enter into the agreement with the purchaser and who has entered into the agreement to execute the work/provide goods and services within the scope of this tender.

WOL: means Wireless Operating License.

Tender Fee: - Tender fee is the cost of a complete blank tender form with all detail Information about the tender like as technical specifications of each items, all terms and conditions of tender, all Pro-forms forms, etc.

1.2 GENERAL CONDITIONS

- (i) Online submission of Tender with Tender-Fees.
Bidders must have paid the prescribed tender fees online.
- (ii) e-offers prepared in accordance with the procedures enumerated in this document then should be submitted online on website <https://www.mptenders.gov.in> also submit EMD online in favor of SSP (Radio) MP. Bhopal.
- (iii) This RFP supersedes and replaces any previous public documentation & communications, and Bidders should place no reliance on such communications.
- (iv) The competent authority reserves to him the right to invite the fresh Tenders and to place orders against any quantity of any items in this Tender without specifying any reasons.
- (v) Director General of Police, MP may cancel the tender and all proceedings relating thereto without assigning any reason.
- (vi) This is an invitation to Tenderers for ‘**Design, Supply, Installation and Commissioning of UHF Digital Radio Trunking (APCO-25 Phase II/ DMR TIER –III) System on “Turn-key” Basis for Bhopal District**, as per BOM/BOQ given.
- (vii) Tenderers are advised to study the tender document carefully and thoroughly. Submission of Proposal shall be deemed to have been done after careful study and examination of the tender document with full understanding of its implications.
- (viii) Bidders shall not be permitted to alter or modify their bids after of the deadline for receipt of bids.

- (ix) The bid shall contain no interlineations, erasures or overwriting on scanned copy of submitted document and all pages of the bid must be signed and sequentially numbered by the bidder.
- (x) It will be imperative on each Tenderer to fully acquaint himself with all the local conditions and factors, which would have any effect on the performance of the contract and cost of the goods. No request for the change of price or time schedule of delivery of goods shall be entertained, on account of any local condition or factor once the offer is accepted by the M. P. Police.
- (xi) The requirement for items mentioned in **Section IV**. Tenderers are also advised to ascertain whether they meet the eligibility criteria for bidding for the same. Bids for incomplete items will not be accepted. Tenderers should quote for all the items mentioned in **Section IV** on a single responsibility basis. Bids with partial response are liable to be rejected.
- (xii) Tenders with price variation clauses or with vague terms are liable to be ignored and rejected. Counter offers shall not be considered. Incomplete tenders are liable to be rejected.
- (xiii) This Tender is non-transferable. Assignment and subletting is not permitted. Information regarding associates and principals is to be disclosed in the tender technical bid itself.
- (xiv) The successful Tenderer should have a local support set up in India. till the expiry of warranty period. Technical committee shall examine the status of support set up and if it is not satisfied, it may reject the bid as not fulfilling the “minimum eligibility criteria” or Bidder should submit undertaking stating that they will open local office in India within 60 days from contract award date.
- (xv) Bidder must have valid dealer possession license (DPL) at the timing of bidding .
- (xvi) Tender can also be download from website of MP Police (www.mppolice.gov.in). Bid will only be considered when online submitted with suitable tender fee receipt.
- (xvii) **In any bid only one product {technology i.e. (a) APCO-25 Phase-II or (b) DMR Tier-III } can be quoted against each technology items in BOQ. If a bidder wants to bid for another product(technology) he has to submit separate bid.**
- (xviii) L-1, will be decided including warranty (CAMC) charges. Warranty (CAMC) period will be 3 Years after go live date.
- (xix) All formats and Forms duly filled up carefully after complete preparation of bid with showing the page no. And upload all documents correctly in <https://www.mptenders.gov.in> website. If the bidder, who wants to enclose some other additional relevant document, can add with the list of such documents separately in concerning bid.
- (xx) The support personnel must be capable to provide maintenance and support services Independent of principles, in Bhopal for the Wireless Set being offered. Attach relevant documents as per the requirement. Also Submit **Form-XII**.
- (xxi) **All accessories & Batteries supplied by the successful bidder must be of same OEM, in case wireless set OEM is not a manufacture of any accessories then it must be Technically Compatible and approved by the OEM.**
- (xxii) This is a Turn key Project. Selected bidder will supply all items as per BOQ on single responsibility basis and installation in Bhopal district as directed by department.
- (xxiii) The bidder should very well understand and know that purchaser wants to procure **Design, Supply, Installation and Commissioning of UHF Digital Radio Trunking (APCO25 Phase II/ DMR TIER –III) System on “Turn-key” Basis for Bhopal District** to substitute the existing APCO-16 radio trunking system. The proposed/quoted system/technology must have capability to fulfill the communication need. Purchaser department is open for technology for (a) APCO-25 Phase-II. or (b) DMR Tier-III Bidder may bid for any of these with appropriate solution as per given BOQ/BOM and specifications in section -IV of RFP.
- (xxiv) The List of Police radio distt. Bhopal city station with required information is given at annexure “C” for ready reference to setup required communication. (Bidder must visit & survey the area before submission the bid)
- (xxv) Total cost of complete solution as per BOQ will be considered for L-1 lowest offer, which is independent of technology/system offered by bidder in between.
- (xxvi) **Joint ventures/Consortium to be prohibited.**
- (xxvii) **Force Majeure :** Neither party shall be liable for any delays or failure in performance in whole (or in part) of its obligations under this agreement if such delay or non-performance is due to any Act of God, war, terrorism, riot, civil disturbance rebellion, government regulation embargo, explosion, fire, flood, tempest,

strike or failure in lighting, electrical power or telecommunications equipment's, circuits or other events beyond the reasonable control of the party whether or not similar to the forgoing (**as an event of force majeure**). In any such event, the parties will discuss the feasibility of continuing the provision of the Services, including the cost related thereto. **It is subject to the satisfaction of the competent authority.** The event of force-majeure persists for period of 30 business days or more and whichever parties performance is affected by the event of force-majeure, either party shall be entitled to terminate the relevant Order under this Agreement unilaterally without liability to the other in respect of such termination. Upon such termination, client shall pay (vendor) for all services rendered and expenses incurred by Personal up to and including the date of termination and any demobilization costs resulting from such early termination as provided for in relevant order. In event of such termination, client acknowledges that the services will be work in progress and may not be in a finished state.

- (xxviii) As per compliance of restrictions under rule 144(xi) of GFR 2017: restriction on procurement from a bidder of a country which share a land border with India.
- (xxix) Bidder will share the desired BOQ for complying the requirement of full coverage based on the survey done by them. Any extra component required for full coverage need to be incorporated by bidder in their BOQ submitted with technical bid. If anything not mentioned in BOQ by the bidder but required for the compliance of Full coverage will be provided free of cost by the bidder.
- (xxx) **All related Software will be the property of purchaser. All software, System-key, Password etc will be handover to the department by the Vendor.**
- (xxxi) **Offer price with warranty (CAMC) price shall be on all inclusive basis i.e including all taxes, duties, local levies/ transportation/ loading, unloading charges etc.**
- (xxxii) **The successful bidder shall provide break up of GST and basic price with invoice/bill form.**
- (xxxiii) **If there is any variation, it will be bidder's responsibility to prepare and submit correct GST rates within offered price. No additional amount shall be paid by the purchaser.**
- (xxxiv) **The bidder should takes all precautions while submitting financial bid sheet to avoid any ambiguity in future.**
- (xxxv) **If there is any difference in interpretation of applicable GST rates. The opinion/decision of GST commissioner shall be final and bending.**
- (xxxvi) **It will be presumed that the bidder has understood and quoted the price inclusive of correct GST rates.**

1.3 TENTATIVE BID SCHEDULE

S.No.	Work Item	Tentative Schedule
1.	Documents Publish/ download/Sale Start Date	25/05/2022 1800 Hrs
2.	Pre-bid Queries Submission Start Date	25/05/2022 1830 Hrs
3.	Pre-bid Queries Submission End Date	01/06/2022 1700 Hrs.
4.	Pre-Bid Meeting	03/06/2022 1200 Hrs.
5.	Pre-bid Queries Response Submission Date	04/08/2022 at 1800 Hrs.
6.	Bid Submission Start Date	05/08/2022 from 1800 Hrs.
7.	Bid Submission End Date	20/08/2022 up to 1700 Hrs.
8.	Opening of PQ Bid	22/08/2022 at 1200 Hrs.

Addressee and Address of Procuring Authority:

**Senior Supdt. of Police (Radio)
Police Telecommunication Head Quarter,
Bhadbhada Road, M. P.
Bhopal– 462003**

Proposals and the PQ Bid will be opened online in the Conference Hall, at Police Telecommunication Head Quarter, Bhadbhada Road, Bhopal. The bidders or their authorized representatives may remain present, if they so desire.

Note:

1. **The SSP(Radio) or M.P. Police shall not be responsible for any delay, non-receipt or non-delivery of the Proposals.**

2. The Committee(s) reserve all rights to open the online bid and examine its contents or ask for clarifications or ask for revised proposals and the decision of the committee shall be final and binding.
3. The Competent Authority reserves all rights to reject any or all offers without assigning any reason whatsoever.
4. The representatives (Employee, Manager, Owner, Partner, and Director) of the bidders participating in the tender meetings including Technical Evaluation Committee meetings etc. must carry authorization letters from the bidder concerned.

1.4 Validity of the Tender Bid

Offer should be kept open for acceptance for a period of **six months** from the date of opening of the price bid of Tender. A bid valid for a shorter period may be rejected by the purchaser as non-responsive. Any increase in rates within this period will not be entertained and will result in forfeiture of EMD And / or Security Deposit. In the absence of express indication of Tenderer's, it should be deemed that they are willing to keep their offer open for acceptance for a further period of six months as stipulated above. During the period the purchaser will have right to demand additional quantity up to 50% of the quality mentioned in the NIT.

1.5 Pre-Qualification (PQ)/ ELIGIBILITY Criterion [See check list and fill the same completely]

The proposal is open to all Tenderer's who full fill the following requirements:

- 1) The Bidder must be a company registered under Companies Act, 1956/2013 or the partnership firm registered under the partnership act, or a society registered under relevant society act or proprietorship firm or any other legal entity. The bidder must submit the copy of registration of firm / certificate of incorporation and Articles of Association/Memorandum of Association.
- 2) The Bidder must be in business of manufacturing/trading/supplying the Digital VHF/UHF wireless sets and accessories continuously since **01 Apr 2017** or before in India. The bidder must submit the latest certificate issued by Chartered Accountant.
- 3) (a) The Bidder, should be authorized by each OEM (in respect of products and its services) to quote against this tender for the requirement of M. P. Police, proposal. Bidder must also submit relevant documents/certificates/authorizations from the O. E. M. / principles in respect of products and its services to be made available in the enclosed prescribed **Form –V**. Without proper letter of authorization, the bid is liable to be rejected. **OEMs Certificate to be considered for all major equipment for this project.**
(b) Where the bidder claims to be the authorized stockiest/agent/dealer of an OEM, it has to submit under taking by the OEM that, “after assessing the financial status of the bidder, it will provide adequate quantity of quoted item within the given supply period to enable the bidder to perform its bid obligations.” Submit **Form-V**, signed by OEM.
(c) **An engineer/technician from OEM with technical knowledge and experience of installation of system must be made available during installation and commissioning of the system. Undertaking/Letter from OEM must be submitted.**
- 4) Bidder should have **minimum average** annual turnover of **Rs. 30 crores OR more** during last three financial years (**2019-20, 2020-21, 2021-22**).
- 5) The Bidder must submit copy of audited balance sheet of last three financial year duly certified by a Chartered Accountant, and submit information in the enclosed prescribed **Form–IV**. The form must also be signed by bidder's regular chartered accountant.
- 6) The bidder should have successfully executed and completed single or multiple supply orders of cumulative value of **Rs. 15 Crore** or more for Digital wireless sets (Digital VHF/UHF/Trunking/APCO 25 Phase-I/Phase-II/DMR-II/ DMR-III Wireless sets) in Govt. of India/State Govt. of India/ Govt. Undertaking / Defense or similar establishments/PSU during **last Seven financial years (i.e.,2014-2015, 2015-2016, 2016-2017, 2017-2018, 2018-2019,2019-20, 2020-21 or latest** Copy of PO's must be enclosed (As per enclosed prescribed FORM – IX.) as proof and executed work orders proof. The bidder also must submit performance statement (As per enclosed prescribed FORM – IX) indicating his past successfully executed and completed supply issued by concerned buyer organization. The statement must give details of order number and date, order value, customer name. The competent authority reserves the right to establish the veracity with respect to document mentioned.
(A) No bid (in reference to all items) shall be accepted of any work/supply if the bidder has failed in implementation/ installation/ commissioning order in last 3 years.
(B) If the committee is not satisfied over turn over/production/supply and performance capacity of the bidder, it may reject the bid.
- 7) If Bidder quotes **APCO25 Phase II/DMR TIER –III** then the Bidder/OEM should have successfully executed and completed at least one supply order of similar quoted **APCO25 Phase II/ DMR TIER –III** technology as

single project in Govt., Govt. undertaking, PSU, Police, Defense in India or outside India. Copy of P.O. Agreement and performance certificate must be enclosed. In case the quoted technology is deployed outside India only police, defense, fire or emergency serving organization of the government shall be considered. The department may verify submitted credential from the client organization, if required.

- 8) At the time of bid, Bidder must not be blacklisted from any Govt. Organization/Body in India. Declaration certificate must be submitted as per enclosed prescribed **Form – VII**.
- 9) The Bidder must be a registered dealer under GST or its equivalent applicable in other States must be quoted in the bid. The Tax Registration certificate and PAN must be submitted by bidder.
- 10) Product Declaration: - The OEM should certify that product quoted are latest version and **last to be for minimum 10 years from go-live date**. The OEM should undertake that the support including spares, updates/patches, security patches, hot & bug fixes and wireless sets batteries for the quoted product shall be available for minimum ten years.(This clause is to get OEM undertaking for product support availability for 10 years from date of purchase. Further AMC process will be decided after completion of 3 years of warranty period of this project). **Warranty (CAMC) will include all of updates of software and patches.**

SECTION II. INSTRUCTIONS TO TENDERERS

2.1 PROCEDURE FOR SUBMISSION OF PROPOSALS

- 2.1.1 The bidder is to fill up online e-tender on website (<https://www.mptenders.gov.in>) up to prescribed date and time with tender fees i.e., **Rs. 30,000/-** EMD i.e., **Rs. 40,00,000/-** should be deposited online **through** (<https://www.mptenders.gov.in>). No bid will be considered, unless and until each page of the bid documents is duly signed in original by the authorized signatory. Prices should not be indicated in the Pre-qualification or Technical Bid. It will lead to rejection of bid. All the columns of the quotation form shall be duly, properly and exhaustively filled in. The rates and units shall not be overwritten. Rates shall be both in the figures and words. It is mandatory for all bidders to quote F.O.R. destination Bhopal (M.P.) as per BOQ in Financial Bid.
- 2.1.2 Financial Bids determined to be substantially responsive will be checked by the evaluation committee for any errors. If there is a discrepancy between the quoted rate in figures and the quoted rate in words, the rate in words will take precedence. Arithmetic errors will be rectified on the following basis: -
- 2.1.3 If there is a discrepancy between the unit rate and the total cost that is obtained by multiplying the unit rate and quantity, the unit rate multiplied by quantity shall prevail and the total cost will be corrected unless in the opinion of the evaluation committee there is an obvious misplacement of the decimal point in the unit rate, in which case the total cost as quoted will govern and the unit rate corrected. If there is a discrepancy between the total bid amount and the sum of various costs, the sum of the various costs shall prevail and the total bid amount will be corrected. The amount stated in the Form of Financial Bid will be adjusted by the evaluation committee in accordance with the above-mentioned point for the correction of errors and, shall be considered as binding upon the bidder. If the bidder does not accept the corrected amount of bid, its bid will be rejected, and the EMD shall be forfeited. Any omission in filling the columns of "units" and "rate" or pertaining to the Taxes/levies, service tax as applicable etc., shall deemed to be treated as inclusive in the total project cost. All corrections must be duly signed by the Bidder.
- 2.1.4 All the bid papers must be signed before uploading bid online. The information submitted must be definitive and specific. Vague terms, incomplete information, counter offers, and 'uncalled for' correspondence shall not be entertained. The authorized signatory of the Bidder must sign each page and at the last page it must be clearly indicated that all the terms and conditions mentioned herein are acceptable to the Bidder unconditionally.
- 2.1.5 Bidder is required to submit the complete proposal along with annexure & brochures etc. The proposal has to be signed in original by the authorized representative of the Bidder. The proposal

shall be exactly according to the presented formats given in the Tender documents (RFP). All columns of the prescribed formats should be filled, and all questions in the tender document must be answered. Any additional information should be enclosed separately and referred to in the relevant column in the proposal formats. Modifications / rewording of formats shall not be acceptable. No column should be marked as “NIL” or “Zero”, “0” etc. Where no price is proposed to be charged for any item or its parts required to be supplied, it should be clearly mentioned in so many words.

2.1.6 The Bidder is expected to examine carefully all instructions, forms, terms and specifications in the Tender document. Failure to furnish all information required in the Tender Document or submission of a proposal not substantially responsive to the Tender Document in every respect will be at the Bidders risk and shall result in rejection of the proposal.

2.2 LANGUAGE

The proposal prepared by the Tenderer and all correspondences, documents relating to the proposals exchanged by the Tenderer and the Competent Authority, and shall be written in English / Hindi language. Competent Authority may permit any Tenderer any printed literature or any document in any other language accompanied by authenticated English translation. For the purpose of interpretation only English translation shall be acceptable.

2.3 EARNEST MONEY DEPOSIT

- 2.3.1 A sum of fixed amount mentioned in the NIT against the items should be deposited as EMD online **through** (<https://www.mptenders.gov.in>).
- 2.3.2 The Earnest money will not be refunded on any account what so ever till the Tenders are finalized and in the event of any firm backing out from their offer, the Earnest money is liable to be forfeited.
- 2.3.3 No interest shall be claimed on E. M. Ds. Tenders received without or with inadequate EMD shall be liable to rejected.
- 2.3.4 Only Bidder shall be liable to deposit EMD and security deposit.
- 2.3.5 Only SME & SSMI firms registered in M.P. are exempted from EMD on submission of related valid documents.
- 2.3.6 Bidder can also submit the EMD in form of FDR. Bidder should upload the copy of FDR in the bid & the original copy of the FDR should be submitted before due date.

2.4 ~~PRE-BID QUERIES QUERRIES /Pre-Bid Meeting~~

2.5 Documents comprising the bids

The bids prepared by the bidders according to the procedure mentioned at clause no. 2.1 should comprise of the following:

2.5.1 Pre-Qualification Bid Documents

S. No.	Type of the documents	Required Format
1	Bid proposal sheet duly filled in, signed and complete in all respects.	Form I
2	Particulars and Eligibility of Bidder	Form II
3	Eligibility Conditions	Form III
4	Financial Status (Turnover)	Form IV
5	Manufacturer authorization/OEM certificate to be given by the original equipment manufacturer on its letter head to be submitted in original with clear name, designation, email id, phone no both landline and mobile no's of the signatory. Also the official web site of OEM should be provided	Form V
6	Undertaking Certificate for each member of consortium regarding deduction of taxes	Form VI
7	Declaration by the bidder which includes the undertaking for management that the bidder is not blacklisted by any government or	Form VII

	semi government body in the country	
8	Non-Malicious Code Certificate	Form VIII
9	Performance Statement	Form-IX

2.5.2 Technical Bid Documents

S. No.	Contents	Required Format
1	Bill of Quantity (BOQ)	Form-X
2	Detailed Compliance Statement as per given Technical Specifications	Form-XI
3	Technical Personnel Statement	Form-XII
4	Deviations from tender document conditions	Form-XIII
5	Detailed technical literature of the systems offered to enable a clear understanding of various technical aspects.	
6	An undertaking that the Radios shall be complete in all respect adhering to the requirements of this RFP	
7	All other documents which are required to prove the bidder's compliance with respect to the technical evaluation criterion given in the RFP (As per the bidder's format on Bidder's letter head)	
8	Any other information if required	

2.5.3 Financial Bid Documents

Financial Bid with price in INR must be submitted in prescribed formats as online BOQ.

2.6 Procedure of finalization of Bids

- 2.6.1** Firstly, the pre-qualification bid shall be opened online. At the time of opening of bid the authorized representative may remain present. Committee may ask the bidder any additional document/ information if required, to form its opinion as qualification of the bidder. The technical bid of only bidders qualifying in pre-qualification stage shall be opened.
- 2.6.2** **The Tenderer must demonstrate their quoted product before technical committee at SSP (Radio), Bhopal, M.P. Quoted product once demonstrates and approved by TEC shall not be allowed to be changed at the time of supply, except with the permission of competent authority.**
- 2.6.3-** The information submitted by the Bidders shall be tabulated and compared with specifications given in the tender form. It will thus be ascertained whether the product offered by the bidder matches with the specification of the purchaser as given in the technical specifications in this tender document.
- 2.6.4-** As part of Technical Evaluation of Bids, the Bidders shall arrange demonstration of their quoted system within a period of **15 days** from the opening of the technical bids to show that they fully conform to this tender. The bidders will be intimated the exact date and time slot for them to carry out such demonstration. *Demonstration of POC will be 3-5 days at Bhopal or as directed by department. Bhopal POC system parameter will be demonstrated by hand held, mobile & repeater with antenna system to show communication coverage.*
- 2.6.5** **The live demonstration of the quoted systems is a mandatory requirement to show conformity with the tender specification and shall include the following:**
1. Single site with minimum four channel/two repeater solution.
 2. At least 5 mobile/static and 5 hand held radios with required accessories.
 3. Coverage of proposed system should be equal to or better than current system:
Description of current system as:
APCO 16, Single site,
No. of Quanter -06 with controller
No. of sets -1162 (Mobile/static- 234 and Hand held -928)
 4. The bidder shall give specific details of make and model of the item being proposed. If the quoted item is part of series, then series name and specific model of the series shall

- be quoted and the same model shall be demonstrated during POC. If any variation is found the bid is likely to be rejected.
5. The specification where ever not mentioned otherwise shall imply the minimum basic requirement and achieving the minimum requirement through expansion or programming shall not be accepted.
 6. Arrangement for field trial/survey/technical evaluation for installed/proposed APCO-25 Phase II/DMR-III shall be made at the cost of the bidder. M.P. Police shall provide space to house the base station, permission to install antennas on existing tower and to use existing power infrastructure for power on base station brought for demonstration.
 7. Any other features /capabilities bidder want to demonstrate-
 8. Testing of handheld radio set in outdoor and indoor area will also be carried out to test signal strength in outdoor and indoor area.
 9. Handheld, Static/mobile radio samples of the participating bidders should be IOP (Inter-operability complied).
 10. The Tenderer will make all arrangements to show all functionality and parameter of technology quoted. For the same the Tenderer will bring Digital Radio Test Set at the time of demonstration as well and after delivery of equipment / at the time of check test also.
 11. At the time of quoted product demonstration etc., bidder's representative may remain present.
 12. ***Bidder will share the desired BOQ for complying the requirement of full coverage based on the survey done by them. Any extra component required for full coverage need to be incorporated by bidder in their BOQ submitted with technical bid. If anything not mentioned in BOQ by the bidder but required for the compliance of Full coverage will be provided free of cost by the bidder.***

Failure to demonstrate the quoted system within stipulated time shall be deemed rejection bid. No modification of quoted equipment is permitted during technical field evaluation.

2.6.6- The committee would be entitled to call for any further information, document, under taking and may also interview the authorized representative of the bidder in order to satisfy itself about the eligibility of the bidder, technical specifications of the APCO-25 Phase II/DMR-III system ,Wireless Sets, trust worthiness of the product. The committee would be within its right to get any enquiry, secret or open conducted for the purpose. The information, documents submitted and undertaking given by the bidder or its authorized representative to the committee should be deemed to be the part of the “technical bid” of the bidder. The decision of the committee on technical suitability of the offer shall be final.

Out of all the bidders, committee shall short out the eligible/qualified bidder whose product/solution satisfies the technical specifications as given in Section IV of this document and is overall acceptable to purchaser being satisfied with bidder's capacity to full fill the supplies terms within stipulated time.

2.6.7- Financial bids of only qualified Tenderers shall be opened. Rest bids shall not be considered and such short-listed bidders will be intimated about the date and time accordingly. At the time of the opening of Financial Bids, authorized representatives may remain present. It shall not be obligatory to accept only the lowest financial bid.

2.6.8- Bidders must understand that concerned committee and the competent authority may opt for any bid for the reason given for such preference. Technical qualification does not mean that all bids stands at equal footing in terms of quality, reliability, use worthiness, ease of handling, recurring maintenance and operation cost, down time / up time expected life/service period after expiry of warranty period or often claimed life period etc. These may be among some of considerations on the basis of which concerned committee may recommend any item to be procured and competent authority may accept such item. While making such decisions, the committee(s) may rely on or call for user feedback from

M.P. Police employees or from any other Police organization or other user who is/has used the offered item in this past.

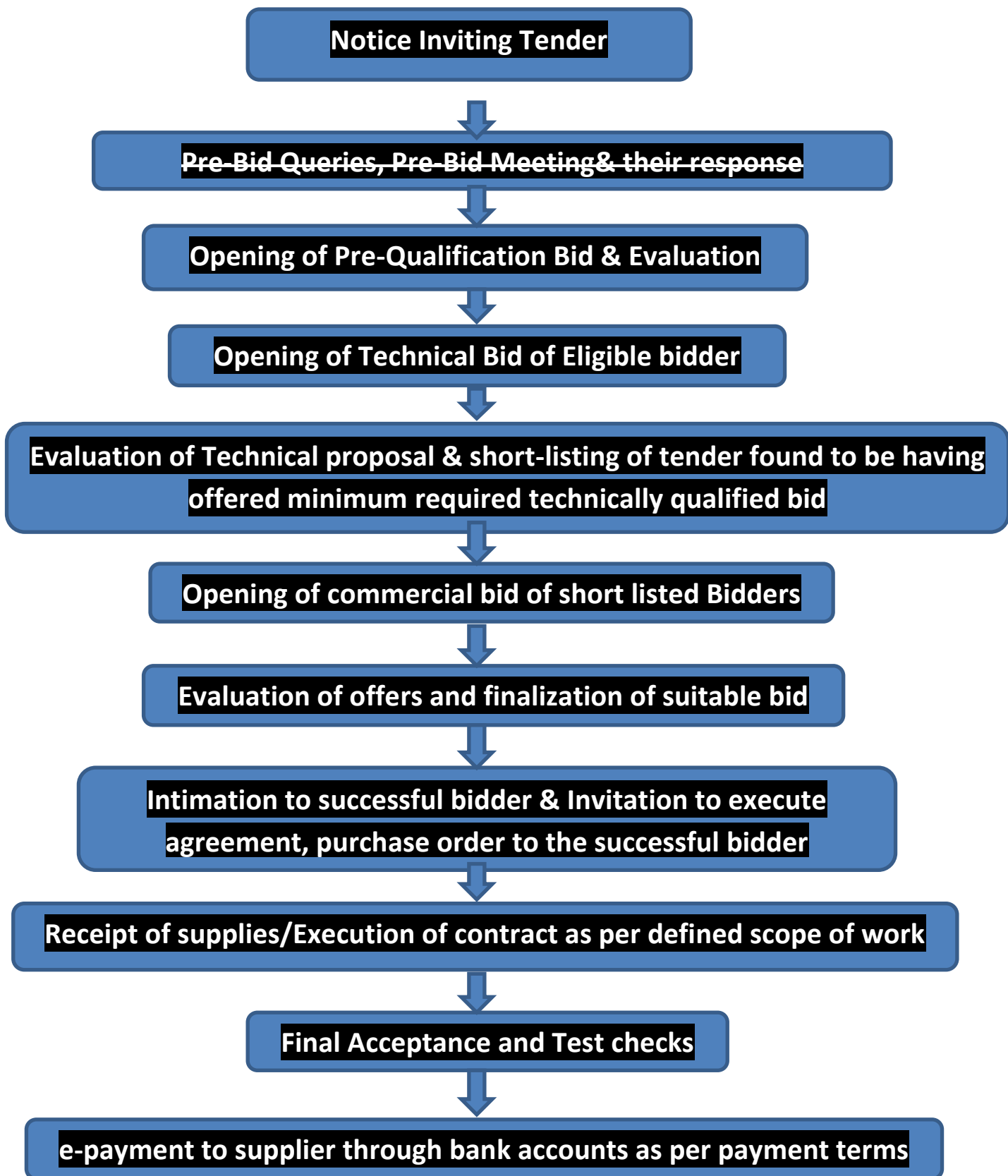
2.6.9 It is also to appreciate that M.P. Police has more than 1000 trained radio technician and its staff and hence repairs / maintains its own inventory generally. Generally it does not make AMC for the most of the items and instead maintains in house. In such a condition the well quantified statistical data on “Total cost of ownership” for the entire life period of equipment is not available with M.P. Police for various items. But since it has rich experience of owning, operating, repairing, maintaining its wireless sets, the user feedback is valuable input to opt or not to opt for any particular item / brand / specification offered in the bid or at any particular price. In this backdrop user feedback would be an important criteria to reject any bid at any stage. No correspondence shall be entertained in this respect. **The bidder or OEM should provide support for complete system in terms of spare parts however AMC after completion of warranty period shall be declared on mutually agreed basis.**

2.6.10 All or any bid may be rejected. The essence is that only such bid that in the opinion of competent Authority is most suitable for MP Police shall be selected.

2.7 ETHICAL CONDUCT OF THE BIDDERS

1. The bidder or its representative shall not make any cartel or group to influence the bidding process or the price to the disadvantage of the Government.
2. The bidder or its representative shall not enter into uncalled for correspondence with competent Authority or any of his subordinate or Consultant or any agency as authorized by the Competent Authority with respect to this tender.
3. Where the bidder requires any information with respect to this tender, it or its authorized representative shall interact with SSP (Radio) only during office hours either in person or on his official phones. Bidders or their staff / agents / employees are strictly prohibited to interact with any M.P. Police Telecom staff, subordinate to SSP (Radio) on any matter what so ever. Such unethical behavior shall lead to automatic disqualification of bid.
4. Where the bidder is not satisfied with any decision of the SSP (Radio), or any of the committee, it has liberty of representing its case before competent Authority or his nominee. But indulging into anonymous or pseudonymous petitions etc. shall be taken to be unethical practice.
5. Bidders must appreciate that only most suitable tender can be accepted and hence all the tenders cannot be accepted, so losing out the bid is also one of the business proposition well known to the bidder well in advance. Therefore, any indiscreet conduct post disqualification would be treated to be an unethical behavior.
6. The Bidder after being awarded the work, during / after its completion and during / after the on-site warranty and maintenance period shall not indulge into monopolistic or restrictive trade practices and shall not take advantage of its position / being privy to the knowledge of the system while working out the costs of spares, maintenance, bug fixing, additional programming to increase marginal but additional functionalities in the software etc.
7. Bidders must also appreciate that purchaser department is fully conversant of its requirements and is entitled to define its requirements. (Bidder must visit & survey the area before submission the bid).
8. Any canvassing in favor of or against any bid or for inclusion or deletion, substitution of any point in the RFP under its own name or in the name of any other entity or anonymous or pseudonymous before any authority not approved in the RFP or before multiple authorities or persistent pestering on any term or condition in the RFP may be taken to be unethical practice.
9. No OEM, its representatives, employees, agents, channel partners, stockiest, or whatever name it may be designated shall indulge into cartelization, preferential treatment to one or more bidder as against others, or any kind unethical practice with respect to this project.

2.8 Tendering Process Flow Chart :



SECTION III: TERMS AND CONDITIONS**3.1 DELIVERY PERIOD**

- 3.1.1 **Design, Supply, Installation and Commissioning of UHF Digital Radio Trunking (APCO25 Phase II/ DMR TIER –III) System on “Turn-key” Basis for Bhopal District** will be delivered within **90 days** from the date of intimation of acceptance of bid or handing over of copy of wireless operating license, whichever is later. Delay may lead to the imposition of the non-liquidated damages / penalty. The delivery period might be required to be guaranteed and should not be subject to vague limitation such as “conditions beyond our control”, “subject to availability of transport” etc.
- 3.1.2 The supply shall be executed **at SSP (Radio), Bhopal, M.P.** at the cost of the Bidder.
- 3.1.3 **If some Delay in handing over of WOL by purchaser takes place, in such case the scheduled Delivery period will calculated from date of handing over the WOL to Vendor.**
- 3.1.4 Schedule:-

Sl. No.	Name of the deliverable	Timelines in Days (M = Date of Handing over WOL)
1.	Delivery of complete material as per Purchase Order.	M+90
2.	Installation, Commissioning and GO-LIVE.	M+120

3.2 STANDARD OF PERFORMANCE

The Tenderer shall carry out the supply order and carry out its obligations under the agreement with due diligence, efficiency, economy and techniques. The Tenderer shall also adhere to professional, engineering and consulting standards recognised by international professional bodies and shall observe sound management, technical and engineering practices. The Tenderer shall apply appropriate advanced technology and safe and effective equipment, machinery, material and methods. The Tenderer shall always act in respect of any matter relating to this agreement, as faithful advisors to the Competent Authority and shall always support and safeguard the legitimate interests of Competent Authority in any dealing with a third party.

3.3 PACKAGING

The tenders shall supply the material in proper packaging unless otherwise indicated to ensure protection from any damage during transfer from tenderer’s place to Police Telecom. These goods would further be distributed after check test. **Purchaser has right to move items to other location within M.P., if required.** Hence the packaging material must be re-usable. The packaging material shall not be returned to the tenderer.

3.4 ACCEPTANCE TESTING AND INSPECTION

- 3.4.1 The **Design, Supply, Installation and Commissioning of UHF Digital Radio Trunking (APCO25 Phase II/ DMR TIER –III)System on “Turn-key” Basis for Bhopal District** for Police Telecommunication Headquarters, MP, Bhopal will be tested by the Final Acceptance & Test Committee as per Acceptance Test Procedure (ATP) as formulated and approved by the Competent Authority or his nominee. At the time of testing etc. Representative of bidder may remain present.
- 3.4.2 Purchaser reserves the rights to pre-despatch inspection at the site of Tenderer’s manufacturing premises as well as testing at our site. Purchaser also reserves the right to inspect the documents regarding procurement of parts / kits of the items being supplied which Tenderer professes not manufacturing in its own plant and purchases from outside or out sources to some third party. (This clause is non mandatory and will be decide on need basis).

3.4.3 Final Acceptance :

- 1 Final Acceptance Test Procedure at site (Final ATP):-The supplier shall submit to the purchaser the finalized ATP documents as per standard test procedure within 30 days from the date of selection as L-1 bidder, for approval. Once the ATP is mutually agreed by both parties, the ATP shall form part of Contract. Inspection and Testing of the system for final system acceptance at purchaser site shall be performed in accordance with the ATP. The successful completion of the ATP will be the sole criterion for final Acceptance of the system. The final acceptance test will start after completion of successful installation/testing of system.
- 2 For the purpose of taking over the system, Final Acceptance Testing shall be carried out at the purchaser site.
- 3 After the system is fully installed, optimized and ready for the final Acceptance Testing, the same will be carried out to validate system features and functional operation in the field in accordance with the Final ATP.
- 4 An Inspection team comprising the authorized nominee of the purchaser and the supplier respectively shall carry out the FAT.
- 5 The Inspection Team shall test the complete system to ensure that the system meets the Agreed Specification
- 6 The Purchaser shall have the right to reject the complete System if, in its opinion the same does not meet the Agreed Specification and if the Supplier does not set right the shortcoming in the system, within 30 days of written intimation to the supplier.
- 7 When the final ATP is successfully completed, an Acceptance Certificate shall be prepared by the Inspection Team and submitted to the purchaser for take-over of the system and further necessary action.
- 8 The installation or commissioning shall not be deemed to have been completed unless all the stores and the system is fully operationalized and accepted by Purchaser.
- 9 Before the system is taken over by the purchaser, the supplier shall supply installation, operation, repair, technical/service and maintenance manuals of the complete Equipment/System including third party equipment. This shall include the following :
 - a. System Interface Drawing
 - b. System Interconnection and Block Diagrams.
 - c. User Operation Manuals.
 - d. Detailed Equipment Service and Maintenance Manuals.
 - e. As Built -up Drawings.
 - f. Technical/Service manual.
- 10 Complete documentations of the all the measurements conducted during the installation period shall be submitted by the supplier for future reference. Five copies of this documentation shall be supplied to the purchaser.
- 11 The technical problems faced during installation, testing and commissioning period and their solution shall be submitted by the supplier at the time of handing over the completed works to the purchaser. Five sets of this documentation shall be supplied.
12. **New technology/Upgrade:** The supplier shall share with the purchaser any subsequent upgrade of the technology that may become available so as to ensure that

the system provided Under this contract is not rendered obsolete. **All software up gradation will be from CD/DVD (certified by OEM for no malware) as no Internet connection is allowed in the trunking system.**

13. **System Security:** The supplier shall give confirmation that the digital end to end encryption to be deployed in the system shall be temper proof and based on latest encryption system which makes it difficult to decipher by an unauthorized interception/tapping. Digital encryption shall use hardware/software based crypto module with latest security feature available worldwide i.e. FIPS 140-2 level - 3/AES-256 or better.

3.5 RIGHT TO VARY QUANTITIES

- 3.5.1 The Competent authority reserves the right to vary the quantity within the validity of the contract or at the time of placing the purchase / work / supply order and demand additional quantity within the 6 months of execution of agreement without any change in price or other items and conditions with commensurate increase or decrease in delivery period. The quantity indicated in the Notice Inviting Tender may vary. Tenderer shall be bound to supply the item(s) in such a quantity as required by M. P. Police.
- 3.5.2 The competent authority also reserves the right to place part order on the selected vendor. It must be clearly understood that the demand may fluctuate and no definite quantity can be guaranteed. The essence of the contract is price per item for the contract period stipulated. The approximate requirements are given in the tender schedule / bill of material.
- 3.5.3 The competent authority will be entitled to have protection of the price fall to be extended to it.
- 3.5.4 The purchaser reserves to himself the right to invite the fresh Tenders and to place orders against any quantity of any items in this Tender without specifying any reasons.

3.6 CONSIDERATION – Price, Taxes etc. and Payment Terms

Payment Milestone:

S. No.	Payment	Terms
1	60% of the total contract value including taxes	will be released on delivery and acceptance of all items at FOR place and after Installation, Commissioning and system declared Go-live.
2	25% of the total contract value including taxes	will be released after 6 Month Satisfactory Functioning of system from Go-live.
3	5% of the total contract value including taxes	will be released after 1 Year Satisfactory Functioning of system from Go-live.
4	5% of the total contract value including taxes	will be released after 2 Year Satisfactory Functioning of system from Go-live.
5	5% of the total contract value including taxes	will be released after 3 Year Satisfactory Functioning of system from Go-live.

- 3.6.1 The Tenderer will be entitled to receive consideration after completion of the respective delivery and “Final Acceptance Test” of all the items to be supplied by the bidder at **SSP (Radio), Bhopal, M.P. Design, Supply, Installation and Commissioning of UHF Digital Radio Trunking (APCO25 Phase II/ DMR TIER –III)System on “Turn-key” Basis for Bhopal District** will be tested at FOR site and **after Installation, Commissioning and system declared Go-live** if found OK to the entire satisfaction of Competent Authority, **60% Payment will be released.**
- 3.6.2 The prices quoted for the items shall be firm throughout the period of agreement and shall not be subject to any upward modification whatsoever. The rates should be quoted F.O.R. at **SSP Radio, Bhopal, M.P.**
- 3.6.3 Applicable WPC charges towards Royalty Fees, License Fees and SACFA approval charges shall be borne by M P Police.

3.7 PENALTY CLAUSE

- 3.7.1 If the **supply of the material** is not completed in the stipulated time as prescribed in this document:-
- a) Penalty of 0.25% per week of the material cost shall be imposed. It shall be payable by the Vendor. The said amount shall be deducted from the total amount payable to the Vendor. Delivery period can be extended with late delivery penalty @ 0.25% per week **for mutually agreed period** on the request of Vendor / Supplier by the competent authority, while considering merits and demerits of the case.
 - b) If the **Installation and Commissioning work of the System** is not completed in the stipulated time as prescribed in the Section-III (3.1.4) of this document, Penalty of 0.25% per week of the Basic cost of **material cost** shall be imposed, **which capped up to 10%**.
 - c) to purchase else-where, without notice to the Tenderer on Tenderer's account and at the Tenderer's risk, the items not delivered or others of a similar description (where offers exactly complying with the particulars are not in opinion of the competent authority readily procurable, such opinion being final) without canceling the contract in respect of the consignment not yet due for delivery, and / or
 - d) to cancel the contract or portion thereof and if so desired to purchase the items at the risk and cost of the Tenderer, and/or
 - e) to forfeit the Earnest Money Deposit and/or Security Deposit to the extent of the loss incurred by the Government.
- In the event of action being taken under (a), (b) and (c) above, the Tenderer shall be liable for any loss, which the Government may sustain on that account but the Tenderer shall not be entitled to any gain on purchase made against default.
- 3.7.2 Failure to give services (repair / replacement of Radio Sets/system equipment) under warranty period, within 7 days of complaint will lead to imposition of penalty @ Rs. 200/- per day per wireless set/equipment.
- 3.7.3 Penalty may be deducted from any amount payable to vendor or it may be directed to deposit the penalty amount separately or may be deducted from security / performance bank guaranty / deposit.
- 3.7.4 The purchaser will have powers to impose penalty up to 5% of balance undelivered / partially delivered material, in cases of excessive late deliveries. D.G.P. M.P. will be final authority to decide the quantum of the penalty to be charged.

3.8 TERMINATION FOR DEFAULT

- 3.8.1 The Competent Authority may, without prejudice to any remedy for breach of contract, by written notice of default sent to the Tenderer, terminate the agreement in whole or in part if:
1. The Tenderer fails to perform any or all of the obligations within the time period(s) specified in the agreement or any extension thereof granted by the Competent Authority.
 2. The quality of the delivery of Digital UHF Wireless Sets with accessories is not up to the satisfaction of the Competent Authority.
 3. The Tenderer fails to perform any other obligation under the agreement.
 4. The Tenderer fails to perform any other obligation, which the Competent Authority feels necessary for the best interest of the Purchaser.
- 3.8.2 The Competent Authority may at any time terminate the contract by giving written notice to the Tenderer without compensation to the Tenderer, if the Tenderer becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy, which has occurred thereafter to the Competent Authority.
- 3.8.3 In case of termination of contract as mentioned above all Bank Guarantee furnished by Tenderer shall stand forfeited.

3.9 SUSPENSION

- The Competent Authority may by a written notice of suspension to the Tenderer, suspend all payments to the Tenderer if the Tenderer fails to perform any of its obligations (including the carrying out of the tasks) provided that such notice of suspension:
- a) Shall specify the nature of the failure and
 - b) Shall direct the Tenderer to remedy such failure within a specified period from the date of receipt of such notice of suspension by the Tenderers.
 - c) In case at any point of during execution of project, competent authority observed that bidder fails to comply the RFP terms and condition even after multiple notices/ intimation letter to improve the performance, then Competent authority may decide to suspend the services of bidder followed by **blacklisting**.

3.10 TENDERER'S LOCAL SERVICE CENTRE & PERSONNEL

The tenderer having local service center for radio sets may be preferred over others such a tenderer shall have to provide such qualified and experienced personal as are required to perform the services under agreement firm will give full details of his personals and service center in the Form-XII

-OR-

The successful bidder shall open a local service center within 60 days from the receipt of Purchase Order. An undertaking has to be submitted along with the technical bid in this regard

3.11 PROPERTY AND RISK

- 3.11.1 The property and risk in the goods shall pass to the Competent Authority when they are delivered and accepted as of the F.A.T. in accordance with the conditions of the agreement. Such passing of property and risk shall be without prejudice to any right of rejection.
- 3.11.2 All goods must pass the acceptance test and Competent Authority shall be entitled to reject all or any goods, which do not conform completely in every respect to the specifications.
- 3.11.3 If by the nature of the goods or property, any defect therein or any failure to conform as aforesaid does not or would not become apparent (despite the carrying out the examination and / or required test) until after use, Competent Authority may reject the same even after a reasonable period of use.
- 3.11.4 Any goods rejected must at the request of Competent Authority be replaced or re-performed as the case may be, by the Tenderer at his expense. Alternatively, Competent Authority may elect to cancel the contract both in respect of the goods in question and of the whole of the undelivered balance (if any) of the goods covered under this contract. All rejected goods will be returned to Tenderer at his expenses.

3.12 ARBITRATION

In all matters and disputes arising there under, the Director General of M. P. Police shall be sole arbitrator to decide the claim and its decision shall be final and binding on both the parties. No suit or claim in respect of this tender can be filed in any court save at the court of competent jurisdiction at Bhopal.

3.13 RIGHT OF INSPECTION

- 3.13.1 The Competent Authority shall have the right to inspect the work or get it inspected by his agent or any authorised officer at any stage.
- 3.13.2 The supplier must have suitable facilities at his establishment / workshop / R & D centre for carrying out various performance tests on the equipment's. A functional & reliability test may be carried out at the Tenderer's centre or any other place decided by the competent authority. Reliability of the Digital UHF Wireless Sets shall be demonstrated to the satisfaction of the purchaser.

3.14 PATENT, COPYRIGHTS, DESIGN, INTELLECTUAL PROPERTY RIGHTS AND INDEMNITY LIABILITY [See Form-VIII]

- 3.14.1 The Tenderer shall indemnify the MP Police for any third party liability arising out of patent or copyright or intellectual property or any other dispute. Tenderer shall bear the cost of any dispute arising as of alleged violation of any law and policy applicable in India, with respect to this supply.
- 3.14.2 The Tenderer shall not purchase or use or offer the goods for the performance of work which would infringe any Indian or foreign patent, trademark, registered design or other intellectual property rights, whether or not similar to any of the said goods.
- 3.14.3 That Tenderer shall indemnify the Competent Authority from all actions, costs, claims, demands, expenses & liabilities whatsoever resulting from any actual or alleged infringement as aforesaid and at the expenses of Tenderer shall be defended in the defence of any proceedings which may be brought in that connection.
- No goods covered by the contract shall be manufactured, sold, disposed or done by Tenderer in violation of any right whatsoever of third party, and in particular, but without prejudice to the generality of the foregoing of any patent right, trademark or similar right, or of any charge, mortgage or lien.
- 3.14.4 Tenderer should submit Certificate signed by O.E.M. regarding non-violation / infringement of any Indian or foreign patent, trademark, registered design or other intellectual property rights.

3.15 ASSIGNMENT & SUBCONTRACTING

- 3.15.1 Tenderer shall not assign or transfer this contract or part thereof to any other person without written consent of the Competent Authority.
- 3.15.2 Tenderer shall not, without the written consent of Competent Authority, subcontract this contract or part thereof.
- 3.15.3 For the purpose of the liabilities under this tender, the Tenderer will be considered as a solely liable to all the components of the tender.

3.16 Warranty / Maintenance (CAMC)

3.16.1 The supplier shall provide comprehensive on site guarantee/warranty of the system including both hardware and software as terms and condition for guarantee/warranty for all stores/equipment supplied including third party equipment under the contract for a period of **three years** from date of final acceptance of the system. **Only the batteries for portable radios shall be warranted for 18 months** an undertaking to this effect shall be furnished as per section-IV along with the technical bid the batteries for the portable radios should be of same OEM. (**Clarification-** Portables batteries warranty shall be covered for 18 months from the date of final acceptance and warranty for other accessories will be 3 years from the final acceptance).

If Department has requirement for batteries and other equipment's, the successful bidder shall make them available at same rate during warranty period.

3.16.2 Extension of the Contract : M.P. Police shall reserve the sole right to grant any extension to the term mentioned in the R.F.P. document. The decision to grant or refuse the extension shall be at the M.P. Police discretion and such extension of the contract, if any shall be as per terms agreed mutually between M.P. Police and the Bidder.

3.16.3 Required spare parts of radio sets shall be provided by the tenderer when needed upto 10 years from the date of purchase by Purchaser (Police Telecom. H.Q., M.P. Bhopal)

Spare Parts:- The bidder will submit undertaking from the manufacturer (OEM) that supplies of necessary maintenance equipment and spare parts will be made available for all items/Equipment and the complete system including third party equipment for a period of 10(Ten) years on a continuing basis..

3.16.4 Failure to give services (repair / replacement of Radio Sets/equipment's) under warranty period, within 7 days of complaint resulted a penalty will be impose @ Rs. 200/- per day per wireless set/equipment's.

3.17 Registration with GST

The bidder should have their firm registered with GST and shall furnish notarized copies of the same with their Pre-qualification bid along with their latest Tax clearance certificates from the concerned Purchaser.

3.18 OTHER CONDITIONS

3.18.1 The Director General of Police MP may cancel the tender and all proceedings relating there to without assigning any reason. The decision of the Director General of Police, MP Bhopal shall be final as regards the acceptability of Tendered items and items supplied by the Tenderer and Director General of Police PHQ, MP Bhopal shall not be required to give any reason in writing otherwise at any time for rejection of the Tender or items

3.18.2 Any call deposit pending with the Purchaser in another connection cannot be adjusted for the present Tender.

3.19 SECURITY DEPOSIT

3.19.1 The successful Tenderer will be required to furnish a fresh **Security Deposit equal to 5% of the Contract value** in the shape of FDR / Bank guarantee issued by any Indian Nationalized/ commercial Bank at the time execution of agreement. After execution of agreement the EMD of fixed amount deposited with their bid will be released which submitted at the time of bidding.

3.19.2 After furnishing the security deposit by successful tenderer, the EMD of fixed amount deposited with their bid of all other participating tenderers will be released.

3.19.3 Security deposit will be returned to the vender/supplier after expiry of warranty period.

3.19.4 Penalty may be deducted from security deposit also.

3.19.5 In the event of delay acceptance of stores the warranty period will start after that from date of final acceptance in such case PBG validity is require to extend to cover the warranty period the supplier is liable for this.

3.20 AGREEMENT

3.20.1 The successful Tenderer will have to enter into an Agreement with the SSP (Radio), MP Bhopal for the material of the contract on **Rs 1000/-** non judicial stamped paper, within 15 days of the

communication of the final order on bids, the cost of which has to be borne by the supplier. The MP Police shall provide Proforma for such an agreement. No variation is permitted in this agreement.

3.20.2 Till such an agreement is signed, there is no liability for MP Police and Competent authority. D.G.P. may scrap the tender or any of it part without assigning any reason at any time before the signing of the agreement. In case of scrapping of tender or its part M.P. Police will not liable for any loss or cost to tenderer. Till the signing of agreement, the tender shall bear its own cost for all the activities relating to this tender.

3.20.3 This RFP will also be a part of agreement.

Draft copy of the Agreement will be provided to the successful bidders.

SECTION IV. SCOPE OF WORK AND TECHNICAL SPECIFICATIONS

4.1 SCOPE OF WORK:

The Scope of work shall include design, supply, delivery at site, unloading, any other services associated with the delivery of equipment and materials, installation, commissioning, integration, software optimization, providing warranty/post warranty service for the entire latest **UHF Digital Radio Trunking (APCO25-Phase-II/DMR-TIER–III) System** and any other related accessories/services for the complete setting up of the proposed system and all type of radio (static/mobile/hand held) as per the schedule of requirement and technical specification of this section (Section-IV). The successful bidder shall assume full responsibility of the complete system for its entire life cycle (10years). The related licenses for import of (APCO25-Phase-II/DMR-TIER–III) system and wireless sets shall be the responsibility of the bidder from all government organization. However Madhya Pradesh Police will provide support for completing all relevant formalities for obtaining licenses.

(Clarification-Tenderer will support in liasioning of Frequency License, Import License by providing valid Decision Letter, LOI and WOL from respective authorities like WPC & DOT. All the fees related to above licenses shall be paid by MP Police. The delivery period will start from the date of providing WOL/LOI to vendor).

4.2 Place of Supply & Work

4.2.1 All **UHF Digital Radio Trunking (APCO25 Phase II/ DMR TIER –III) System/** Wireless Sets with accessories are to be supplied at the **SSP (Radio), Bhopal, M.P.**

4.2.2 Successful Bidder will install all the **UHF Digital Radio Trunking (APCO25 Phase II/ DMR TIER –III) System** as required as per technology offered by bidder to establish seamless communication in Bhopal district as directed by department. While Installation if any extra equipment's/accessories/or any other Items required (except wireless tower) must be provided by the Bidder without any extra charges, if not quoted in their bid.

4.2.3 Applicable guidelines/ rules of government to be adhere to while mapping, installing and commissioning of the system.

4.2.4 Training: -

The supplier shall at every stage of installation, testing and commissioning provide all facilities for adequate training of M.P. police personnel who may be deputed to work on the project.

In second phase, the supplier should provide Four weeks training to the 20 engineers/Technician of MP police at the premises of purchaser at no cost. The training part should cover the following aspect:-

- a) The system architecture, different features of main switch and repeater sites,
- b) Functional/Maintenance training on dispatcher console, portable/mobile Radios.

- c) Functional/maintenance training on antenna systems.
- d) Functional/maintenance training on all functional assemblies of the system, including controls, indicators and monitoring system.
- e) Line up procedures for the system and adjustment of operating parameters and other operation and maintenance procedures.
- f) Practical replacement procedures/practices for major assemblies including RF units, for maintenance of the equipment, both at the board replacement and preferably at the board repair level.
- g) Training of software programing, OS and software upgradation process.**

The engineers and technicians should be taught the functionality of all supplied equipment in the system including third party equipment to identify/rectify common hardware features.

Bidder will provide complete details on the training programs to be offered (at purchaser premises) including:-

- a) Material to be covered.
- B) Number of hours of training per operator or technician for each specific course and
- c) Supporting documentation to be provide
- d) Hands on practice of RF equipment replacements and its alignment.

4.3 Minimum Technical Specification of Equipment to be supplied:

Purchaser Department is open to any of technologies and bill of quantities mentioned at Annexure-A or Annexure-B & their specifications given at clause no. 4.3.1and 4.3.2 as follows: -

The bidder is directed to submit brochure of their quoted make/model products with technical specification. If the product quoted by bidder is in series, the specific model with preferably accompanying photo should be provided with this bid. If there is any deviation in brochure from specification provided at annexure – ‘A’ & annexure – ‘B’ the bid may be rejected.

Annexure “A”

4.3.1 TECHNICAL SPECIFICATIONS OF RADIO TRUNKING SYSTEM-APCO 25 PHASE-II

A. DIGITAL HANDHELD RADIO:

S.I. No.	SPECIFICATIONS	
1	GENERAL	
1.1	Frequency Range	800MHz BAND
1.2	Duplex Spacing	45MHz For 800MHz Band
1.3	TDMA	2-Slot
1.4	Operation Mode	APCO 25 PHASE II
1.5	Emission	8K10F1W
1.6	No. of Channel	500 or Better
1.7	Channel Spacing	12.5KHz
1.8	No. of Contacts (Individual/ Group Call Numbers.)	1000 or Better
1.9	Battery Capacity	Li-Ion/Li-Poly rechargeable battery of capacity 2400 mAH or higher capacity. Bidder to specify the specific voltage
1.10	Frequency Stability	±1.5PPM or Better
1.11	Antenna Impedance	50Ω
1.12	Weight	Less than 500gm with battery
1.13	EMI/EMC	ETSI EN 301 489-I & ETSI 301 489-5/ (OEM certification supported by international recognized laboratory)
1.14	Display	Alphanumeric
1.15	Protection	Reverse polarity and high VSWR
1.16	Interoperability with minimum two vendors	Interoperability (IOP) with minimum two vendors for DMR hand held and mobile radio. Certification from ILAC/NABL/ DMR association/TWG/Undertaking from OEM can be Accepted. User /DCPW to test
1.17	Antenna	Helical antenna
2	TRANSMITTER	
2.1	RF Power Output	3Watt for 800MHx Bands(programmable)
2.2	Digital Modulation	Inbound/Uplink: HDQPSK(TDMA) Outbound/Downlink: HCPM(TDMA)
2.3	Modulation Limiting	±2.5KHz at 12.5KHz
2.4	FM Hum & Noise	-40dB or Better at 12.5KHz
2.5	Adjacent Channel Power	-60dB or Better at 12.5KHz
2.6	Audio Response	+1, -3dB
2.7	Audio Distortion	Less than 3%
2.8	Digital Vocoder	AMBE +2 (Dual Rate)
2.9	Communication Security (optional)	System should have in built encryption and should also have provision to support 3 rd party encryption (Only third-party encryption support required)
3	RECEIVER	
3.1	Sensitivity (Analog)	0.30 micro-Volt (12dB SINAD) or better
3.2	Sensitivity (Digital)	0.30 micro-Volt at 5% BER or better
3.3	Adjacent Channel Selectivity	60dB or better at 12.5KHz
3.4	Inter-Modulation	70dB or better (OEM certification supported by international recognized laboratory)
3.5	Audio Output	Minimum 500mW
3.6	Audio Distortion	Less than 3%
4	GPS	
4.1	Time to first fix cold start	< 2 minutes
4.2	Time to first fix hot start	< 20 Second
4.3	Horizontal Accuracy	< 10 meters

5	ENVIRONMENTAL	
5.1	Operating Temperature	-25°C to +55°C
5.2	Storage Temperature	-40°C to +70°C
5.3	Humidity	90% Max. at +20°C non-condensing
5.4	Vibration	MIL-STD – 810 F /G
5.5	Shock & Drop	MIL-STD – 810 F /G
5.6	Water Intrusion & Dust	MIL-STD – 810 F /G & IP67 or Better (Certificate required)
5.7	Salt	MIL-STD – 810 F /G
5.8	Rain	MIL-STD – 810 F /G
5.9	Low Pressure	MIL-STD – 810 F /G
(OEM certification supported by international recognized laboratory for point 5.1 to 5.9)		
6	ACCESSORIES	
	A . Mandatory Accessories	
6.1	Battery charger	
6.1.1	Input voltage	230V±10%, 50Hz
6.1.2	Output Voltage	As per battery pack (Information will be provided by OEM/ Vendor).
6.1.3	Type of Battery Charger	Li-ion /Li-Poly
6.1.4	Protection	(1) Reverse polarity protection (2) Short circuit protection
6.1.5	Indication	Visual indication for all modes of charging status
6.1.6	Charging time	Standard chargers -- 6 to 14 Hrs Rapid Charge-- –1 to 3 Hrs
6.1.7	<i>Charging pocket</i>	<i>One charging pocket with each hand held radio</i>
6.2	Battery	Lithium-Ion or Li-polymer batteries one with set and one spare battery .
	B. Accessories (As per BOQ)	
6.3	Programming Kit	All necessary Software and Hardware required for programming of the set independently. Software must support latest Windows OS.
6.4	Literature	a) User manual with each radio sets should be provided free of cost in soft as well as hard copy of particular supplied band . b) Technical repairing manual, with complete block diagram, circuit layout etc should be provided as per user's requirement in soft as well as hard copy of particular supplied band. Note - Hard Copy of User manual Qty. at least @10% of each type radio sets Will be provided by bidder along with soft copy.
6.5	Six position Battery charger	Suitable for hand held set

B. DIGITAL MOBILE RADIO:

S.I. No.	SPECIFICATIONS	
1	GENERAL	
1.1	Frequency Range	800MHz BAND
1.2	Duplex Spacing	45MHz For 800MHz Band
1.3	TDMA	2-Slot
1.4	Operation Mode	APCO 25 PHASE II
1.5	No. of Channel	500 or better
1.6	Chanel Spacing	12.5KHz
1.7	No. of Contacts (Individual/ Group Call Numbers.)	1000 or Better
1.8	Emission	8K10F1W
1.9	Operating Voltage	11.25VDC
1.10	Frequency Stability	±1.5PPM or Better
1.11	Antenna Impedance	50Ω
1.12	Weight	Less than 2.5 kg
1.13	EMI/EMC	ETSI EN 301 489-I & ETSI 301 489-5/(OEM certification supported by

		international recognized laboratory)
1.14	Display	Alphanumeric
1.15	Protection	Reverse polarity and high VSWR
1.16	Interoperability with minimum two vendors	Interoperability (IOP) with minimum two vendors for DMR hand held and mobile radio. Certification from ILAC/NABL/ DMR association/TWG/Undertaking from OEM can be Accepted. User /DCPW to test
1.17	Type of Antenna	Antenna for mobile set : 0dB or Better whip antenna with 5meter thin coaxial cable and suitable connector
		Antenna for static set : 0dB or Better GP antenna with 30meter coaxial cable RG217 and suitable connector at both ends but cable is to be supplied in bundles not in pieces.
2	TRANSMITTER	
2.1	RF Power Output	Minimum 25Watt of all bands
2.2	Digital Modulation	Inbound/Uplink: HDQPSK(TDMA) Outbound/Downlink: HCPM(TDMA)
2.3	Modulation Limiting	±2.5KHz at 12.5KHz
2.4	FM Hum & Noise	-40dB or Better at 12.5KHz
2.5	Adjacent Channel Power	-60dB or Better at 12.5KHz
2.6	Audio Response	+1, -3dB
2.7	Audio Distortion	Less than 3%
2.8	Digital Vocoder	AMBE +2(Dual Rate)
2.9	Communication Security (optional)	System should have in built encryption and should also have provision to support 3 rd party encryption (Only third party encryption support required)
3	RECEIVER	
3.1	Sensitivity (Analog)	0.30 micro Volt(12dB SINAD) or better
3.2	Sensitivity (Digital)	0.30 micro Volt at 5% BER or better
3.3	Adjacent Channel Selectivity	60dB or better at 12.5KHz
3.4	Inter-Modulation	70dB or better (OEM certification supported by international recognized laboratory)
3.5	Audio Output	Minimum 3W (Higher specification will be acceptable)
3.6	Audio Distortion	Less than 3%
4	GPS	
4.1	Time to first fix cold start	< 2 minute
4.2	Time to first fix hot start	< 20 Second
4.3	Horizontal Accuracy	< 10 meter
5	ENVIRONMENTAL	
5.1	Operating Temperature	-25°C to +55°C
5.2	Storage Temperature	-40°C to +70°C
5.3	Humidity	90% Max. at +20°C non-condensing
5.4	Vibration	MIL-STD – 810 F /G
5.5	Shock & Drop	MIL-STD – 810 F /G
5.6	Water Intrusion & Dust	MIL-STD – 810 F /G & IP54 or better (Certificate Required)
5.7	Salt	MIL-STD – 810 F /G
5.8	Rain	MIL-STD – 810 F /G
5.9	Low Pressure	MIL-STD – 810 F /G
(OEM certification supported by international recognized laboratory for point 5.1 to 5.9)		

C. BASE STATION UNIT (BSU):-

S.I. NO-1	GENERAL	
1.1	Frequency range	800MHz band
1.2	Duplex spacing	45MHz for 800 MHz band
1.3	Technology	TDMA two slot APCO25 Phase II
1.4	Frequency stability	±0.5 PPM or better
1.5	Channel spacing	12.5KHz
1.6	Emission	9K80D7W
1.7	Power supply	230V±10%,50Hz
1.8	Vocoder	AMBE+2(Dual rate)
2	TRANSMITTER	
2.1	Power	50W to 100W(user selectable)
2.2	FM Hum & Noise	-40dB or better
2.3	Adjacent channel power	-60dBc or better
2.4	Audio response	+1, -3dB
2.5	Modulation	Inbound/Uplink :HCPM (TDMA) Outbound/Downlink :HDQPSK (TDMA)
3	RECEIVER	
3.1	Sensitivity (Analog)	0.30µV at 12db SINAD or better
3.2	Sensitivity (Digital)	0.30µV at 5%BER or better
3.3	Inter -modulation rejection	70dB or better (OEM certification supported by international recognized laboratory)
3.4	Adjacent channel selectivity	≥65dB @12.5 KHz
4	Antenna system	
4.1	Separate antenna system for Tx and Rx which shall include high gain antenna system minimum 10dBi or better for Tx(1+1) and Rx with combiner, coupler and tower top amplifier.	
4.2	Surge protecting devices in RF cables	
5	CHANNEL UNIT:	
5.1	Shall be modular/expandable	
5.2	Each channel should be configurable to traffic and control unit and vice versa	
6	Air interface standards: shall be open standards APCO 25 Phase II	
7	Environmental	
7.1	Operating temperature	-25°C to +55°C
7.2	Storage temperature	-40°C to +70°C
7.3	Humidity	90 % Max. at +40°C non condensing
(OEM certification supported by international recognized laboratory for point 7.1 to 7.3)		

D. MASTER CONTROL UNIT:-**ESSENTIAL FEATURES:**

S.I. NO	SPECIFICATIONS	
1	Switching system	
1.1	IP based switching equipment.	
1.2	Shall be equipped with all necessary sub systems/modules and one time licensed system software as required for whole life.	
1.3	High availability failover mechanism to switch from primary to secondary switch/ controller and vice-versa for hardware failure, software failure and network failure.	
1.4	Database redundancy has to be provided at the same site.	
2	Minimum No. of base station supported- 10 Nos	
3	Minimum No. of carriers station sites supported- 06 Nos	
4	Network should support at least 250 carriers.	
5	Minimum radio terminal support- 4000 which will include mobile/static/portable radio dispatchers and gateway etc. (Higher specification will be acceptable)	

6	Minimum No. of talk groups- 50
7	Dispatch console: minimum 2 Nos. or more per user requirement
7.1	<p>The dispatcher console shall be able to handle:</p> <p>a) Individual calls, group calls , all calls, broadcast calls, emergency calls and patched group calls</p> <p>b) Data services like status, SDS & free form text messaging</p> <p>c) calls shall be initiated by selecting call talk group(s) from the graphical display . the dispatch console shall have radio unable and disable / stun - un stun facility</p> <p>d) The dispatch console shall maintain call and activity log for audit.</p> <p>e) No call failure.</p>
8	Network management terminal (NMT)
8.1	<p>a) NMT shall work in closed captive network environment and should hot standby redundancy</p> <p>b) NMT shall be equipped with all necessary sub-system/modules and installed with necessary licensed software.</p> <p>c) The NMT shall provide map of the equipment in the network. Such as switch controllers, radio base stations, servers and work stations etc. in trunked radio system with status and alarm indication.</p> <p>d) NMT should display real time channel activity and store activity logging of system components.</p> <p>e)The NMT shall provide user friendly GUI to the NMS administrator and operators with pull-down menu, function keys, online helps screens, windows, colour pictures and statistical graphs for easy operation and interpretation of information.</p> <p>f) The call processing shall not affected by failure of network management system/terminal.</p>
8.2	Fault management : To monitor and to display the status and history of a system component and should also perform diagnostics when needed
8.3	<p>Voice call type : Group call, individual calls, emergency call, Broadcast call.</p> <p>Non voice call/data calls:</p> <p>a) Inhibit / Uninhibit</p> <p>b) Authentication registration</p> <p>c) Status, short data messages</p> <p>d) Packed data transfer facility for customized application</p> <p>e) Shall support AVLS</p>
8.4	Scanning: Shall support talk group scan, priority scan
8.5	Late Entry: Shall support to Group calls.
8.6	<p>Fault Tolerance: System should be fault tolerance in two condition is network failure, and second condition is base station failure in both the conditions system should work as per given a requirement.</p> <p>a) In case of failure in network, isolated site shall be switched to single site Trunking mode at that time.</p> <p>b) In case of Base station failure, the user terminals should operate in fail soft mode.</p>
8.7	<p>Subscriber Management Feature:</p> <p>Add/remove subscribers</p> <p>a) Add/remove multiple subscribers</p> <p>b) Customize call type permissions</p> <p>c) Add/remove multiple talk groups</p> <p>d) Add a broadcast call group</p> <p>e) Add a system call group</p>
8.8	<p>System management features:</p> <p>a) Transmission trunking</p> <p>b) Subscriber unit registration/de-registration</p> <p>c) Group call with late entry. Talk group ID</p> <p>d) Broadcast group call. Unit to unit call</p> <p>e) Call queuing</p> <p>f) Status message. Short message</p> <p>g) Priority talk group monitor and override</p> <p>h) Radio check, radio inhibit/sun-inhibit</p> <p>i) Roaming</p> <p>j) Group location restrictions</p> <p>k) Subscriber location/restrictions</p>
8.9	Maintenance: license for OS, applications, recovery software and database backup feature.
9	Remote Killing: provision to kill or disable the radio remotely.

10	<p>Accounting management: The accounting management feature shall have the capability of tracking the activity of radio users on the system and allow the customer to produce reports about the traffic on the system .</p>
11	<p>Performance management: The performance feature shall have the capability to monitor, control and optimize the utilization of system resources.</p>
12	<p>Security management:</p> <ul style="list-style-type: none"> a) System should support multiple number of network management user accounts. b) Access rights to the various network management applications. c) Multiple levels of access rights to users for performing task with these applications <p>The security management feature shall have the capability of allowing the establishment of authorized log on names and passwords to NMS</p>
13	<p>Voice recording system:</p>
13.1	<p>The voice recording system shall support:</p> <ul style="list-style-type: none"> a) Minimum 16 Nos of channel and should be modularly expandable as per the user requirement b) Group call with in subscriber radios c) Call to and from dispatch console and subscribe radios d) Telephone call through telephone gateway. e) Calls through conventional Analog FM gateway with this metadata, ie Date, time, duration, PTT ID, Group ID. Etc. f) Provision to search records, replay the voice conversations, backup and restore facility should to be built in suitable GUI, application shall be provided g) Calls can be located and reply by radio ID, talk group, ID, alias, date/time criteria etc. h) Digital call recorder shall support Encryption. i) Data should be recorded in main site. j) The system have minimum 100 TB storage capacity and should be modularly expandable.
14	<p>Health status: Health status of Remote radio should be available in NMS.</p>

**Detail Bill of Quantity for Bhopal APCO25 Phase II (for Annexure A)
For one BTS with 8 carrier.**

S.n.	Name of item	Qty.
1	Handheld Sets 3 Watt complete with accessories (software licence belt clip, battery, battery charger)	3000
2	Spare batteries	3000
3	H/H set programming cable, programming software, & soft and hard copy of service manual	05
4	25-watt Mobile radio complete with accessories including software licence, 0dB or Better whip antenna (Gutter mount) with 5 metre co-axial cable and suitable connector, microphone	454
5	Base set programming cable, programming software & soft and hard copy of service manual	05
6	25 watt Static radio complete with accessories including software licence, co-axial cable, power supply, microphone etc. 0 dB or better GP antenna with 30 metre coaxial cable RG-217 and suitable connector at both ends but cable is to be supplied in bundle not in pieces	46
7	BSU complete with accessories, software licence, DC battery power cable, 10dB omni directional Antenna with 60 metre Low loss coaxial cable 7/8" cable with combiner and coupler, Tower top amplifier with Suitable connector at both ends but cable is to supply in bundle not in pieces. (1 Lot antenna system as per specification (4.3.1- c - 4.1) for single site 8 carrier system.)	01
8	(a) Master control unit (b) NMT with hot standby redundancy . (c) Voice recording system.	01
9	Dispatcher console hardware & software server with antivirus, headphone with mic and 2 in 1 audio jack, multimedia speaker system , cables .	02
10	Repeater programming cable, programming software & soft and hard copy of service manual	02
11	Installation commissioning	1 Job
12	stabilizer (11KVA)	01
13	Six position battery charger for hand held set Battery	10
14	2 ton AC for dispatcher site with five star rating (2021) with wall mounting stabilizer	01
15	10 KVA online sine wave UPS 6 hrs. backup with batteries for one BTS with 8 carriers system.	02
16	1+1 hot standby microwave RF link supporting 2.4/5.8Ghz (license free) frequency band between BTS site and Police control room with required switches & other accessories.	01

4.3.2 TECHNICAL SPECIFICATION OF RADIO TRUNKING SYSTEM DMR TIER –III**A. DIGITAL HANDHELD RADIO:**

S.I. NO	GENERAL	
1.1	Frequency range	800Mhz band
1.2	Duplex spacing	45MHz for 800 MHz band
1.3	TDMA	2-Slot
1.4	Operation modes	DMR Tier III
1.5	Emission	11K0F1E, 11K0F3E, 7K60FXE, 7K60FXD, 7K60FXW
1.6	Numbers of channels	500 or better
1.7	Channel spacing	12.5 KHz
1.8	Number of contacts (individual/group call numbers)	1000 or better
1.9	Battery capacity	Li-ion/Li-poly rechargeable battery of capacity 2400 mAh or higher capacity. Bidder to specify the specific voltage.
1.10	Frequency stability	±1.5 PPM or better
1.11	Display	Alphanumeric
1.12	Protection	Reverse polarity and high VSWR
1.13	Interoperability with minimum two vendors	Interoperability (IOP) with minimum two vendors for DMR hand held and mobile radio. Certification from ILAC/NABL/ DMR association/TWG/Undertaking from OEM can be Accepted. User /DCPW to test
1.14	Antenna impedance	50 ohm
1.15	Antenna	Helical ant.
1.16	Weight	Less than 500gm with battery
1.17	EMI/EMC	ETSI EN301 489-1&ETSI 301 489-5/ (OEM certification supported by international recognized laboratory)
1.18	Air interface standards	Shall be open standards DMR Tier-III
2	TRANSMITTER	
2.1	RF power output	3W for 800MHz band (programmable)
2.2	Digital modulation	4FSK DMR Tier-III
2.3	Modulation limiting	±2.5KHz at 12.5KHz
2.4	FM Hum &Noise	-40dB or better at 12.5kHz
2.5	Adjacent channel power	-60 dBc or better at 12.5KHz
2.6	Audio response	+1,-3dB
2.7	Audio distortion	Less than 3%
2.8	Digital vocoder	AMBE +2
2.9	Communication security (optional)	System should have in built encryption and should also have provision to support 3 rd party encryption (Only third party encryption support required)
3	RECEIVER	
3.1	Sensitivity (Analog)	0.30µV (12dB SINAD) or better
3.2	Sensitivity (digital)	0.30µV at 5% BER or better
3.3	Adjacent channel selectivity	60 dB or better at 12.5KHz
3.4	Inter modulation	70dB or better (OEM certification supported by international recognized laboratory)
3.5	Audio output	Minimum 500mW
3.6	Audio distortion	Less than 3%
4	GPS	
4.1	Time to first fix cold start	<2 minutes
4.2	Time to first fix hot start	<20sec.
4.3	Horizontal accuracy	<10meter
5	ENVIRONMENTAL	
5.1	Operating temperature	-25°C to +55 °C
5.2	Storage temperature	-40°C to +70°C
5.3	Humidity	90%Max. at +40°C non-condensing
5.4	Vibration	MIL-STD-810F/G

5.5	Shock & drop	MIL-STD-810F/G
5.6	Water intrusion & dust	MIL-STD-810F/G & IP -67 or better (Certificate required)
5.7	Salt	MIL-STD-810F/G
5.8	Rain	MIL-STD-810F/G
5.9	Low pressure	MIL-STD-810F/G
(OEM certification supported by international recognized laboratory for point 5.1 to 5.9)		
6	ACCESSORIES	
	A. Mandatory Accessories	
6.1	Battery charger	
6.1.1	Input voltage	230V±10%, 50Hz
6.1.2	Output Voltage	As per battery pack (Information will be provided by OEM/ Vendor).
6.1.3	Type of Battery Charger	Li-ion /Li-Poly
6.1.4	Protection	(1) Reverse polarity protection (2) Short circuit protection
6.1.5	Indication -:	Visual indication for all modes of charging status
6.1.6	Charging time	Standard chargers -- 6 to 14 Hrs Rapid Charge— 1 to 3 Hrs
6.1.7	<i>Charging pocket</i>	<i>One charging pocket with each hand-held radio</i>
6.2	Battery	Lithium-Ion or Li-polymer batteries one with set and one spare battery
	B. Accessories (As per BOQ)	
6.3	Programming Kit	All necessary Software and Hardware required for programming of the set independently. Software must support latest Windows OS.
6.4	Literature	a) User manual with each radio sets should be provided free of cost in soft as well as hard copy of particular supplied band. b) Technical repairing manual, with complete block diagram, circuit layout etc should be provided as per user's requirement in soft as well as hard copy of particular supplied band.
6.5	Six position Battery charger	Suitable for DMR hand held set

B. DIGITAL MOBILE RADIO:

S.I. No.	SPECIFICATIONS	
1	GENERAL	
1.1	Frequency Range	800MHz BAND
1.2	Duplex Spacing	45MHz For 800MHz Band
1.3	TDMA	2-Slot
1.4	Operation Mode	DMR Tier III
1.5	No. of Channel	500 or Better
1.6	Chanel Spacing	12.5KHz
1.7	No. of Contacts (Individual/ Group Call Numbers.)	1000 or Better
1.8	Emission	11K0F1E, 11K0F3E, 7K60FXE, 7K60FXD, 7K60FXW
1.9	Operating Voltage	11.25VDC
1.10	Frequency Stability	±1.5PPM or Better
1.11	Antenna Impedance	50Ω
1.12	Weight	Less than 2kg
1.13	EMI/EMC	ETSI EN 301 489-1 & ETSI 301 489-5/ (OEM certification supported by international recognized laboratory)
1.14	Display	Alphanumeric
1.15	Protection	Reverse polarity and high VSWR
1.16	Interoperability with minimum two vendors	Interoperability (IOP) with minimum two vendors for DMR hand

		held and mobile radio. Certification from ILAC/NABL/ DMR association/TWG/Undertaking from OEM can be Accepted. User /DCPW to test
1.17	Type of Antenna	Antenna for mobile set : 0dB or Better whip antenna with 5meter thin coaxial cable and suitable connector Antenna for static set : 0dB or Better GP antenna with 30meter coaxial cable RG217 and suitable connector at both ends but cable is to be supplied in bundles not in pieces.
1.18	Co-Axial Cable	Low Loss
2	TRANSMITTER	
2.1	RF Power Output	Minimum 25Watt of all bands
2.2	Digital Modulation	4FSK DMR Tier - III
2.3	Modulation Devia–ion	±2.5KHz at 12.5KHz
2.4	FM Hum & Noise	-40dB or Better at 12.5KHz
2.5	Adjacent Channel Power	-60dB or Better at 12.5KHz
2.6	Audio Response	+1, -3dB
2.7	Audio Distortion	Less than 3%
2.8	Digital Vocoder	AMBE +2
2.9	Communication Security (optional)	System should have in built encryption and should also have provision to support 3 rd party encryption (Only third party encryption support required)
3	RECEIVER	
3.1	Sensitivity (Analog)	0.30 micro Volt(12dB SINAD) or better
3.2	Sensitivity (Digital)	0.30 micro Volt at 5% BER or better
3.3	Adjacent Channel Selectivity	60dB or better at 12.5KHz
3.4	Inter-Modulation	70dB or better (OEM certification supported by international recognized laboratory)
3.5	Audio Output	Minimum 3W
3.6	Audio Distortion	Less than 3%
4	GPS	
4.1	Time to first fix cold start	< 2 minute
4.2	Time to first fix hot start	< 20 Second
4.3	Horizontal Accuracy	< 10 meter
5	ENVIRONMENTAL	
5.1	Operating Temperature	-25°C to +55°C
5.2	Storage Temperature	-40°C to +70°C
5.3	Humidity	90% Max. at +40°C non-condensing
5.4	Vibration	MIL-STD – 810 F /G
5.5	Shock & Drop	MIL-STD – 810 F /G
5.6	Water Intrusion & Dust	MIL-STD – 810 F /G & IP54 Or Better (certificate Required)
5.7	Salt	MIL-STD – 810 F /G
5.8	Rain	MIL-STD – 810 F /G
5.9	Low Pressure	MIL-STD – 810 F /G
(OEM certification supported by international recognized laboratory for point 5.1 to 5.9)		

C. BASE STATION UNIT(BSU):-

S.I. NO	GENERAL	
1.1	Frequency range	800Mhz band
1.2	Duplex spacing	45MHz for 800 MHz band
1.3	Technology	TDMA two slot DMR tier III radio trunking protocol, ETSI Standard
1.4	Frequency stability	±0.5 PPM or better
1.5	Channel spacing	12.5KHz
1.6	Emission	Analog – 11K0F1E/11K0F3E Digital – 7K60FXE & 7K60FXD/7K60FXW
1.7	Power supply	230V±10%,50Hz
1.8	Vocoder	AMBE+2
2	TRANSMITTER	
2.1	Power	50 to 100W (user selectable)
2.2	FM Hum & Noise	-40dB or better
2.3	Adjacent channel power	-60dBc or better
2.4	Audio response	+1, -3dB
2.5	Modulation	4FSK
3	RECEIVER	
3.1	Sensitivity (Analog)	0.30µV at 12db SINAD or better
3.2	Sensitivity (Digital)	0.30µV at 5%BER or better
3.3	Inter -modulation rejection	70dB or better (OEM certification supported by international recognized laboratory)
3.4	Adjacent channel selectivity	≥65dB @ 12.5 KHz
4	Antenna system	
4.1	Separate antenna system for Tx and Rx which shall include high gain antenna system minimum 10dBi or better for Tx(1+1) and Rx with combiner coupler and TTA	
4.2	Surge protecting devices in RF cables	
5	CHANNEL UNIT:	
5.1	Shall be modular/expandable	
5.2	Each channel should be configurable to traffic and control unit and vice versa	
6	Air interface standards: shall be open standards DMR TIER –III	
7	Environmental	
7.1	Operating temperature	-25°C to +55°C
7.2	Storage temperature	-40°C to +70°C
7.3	Humidity	90%Max. at +40°C non condensing
(OEM certification supported by international recognized laboratory for point 7.1 to 7.3)		

D. MASTER CONTROL UNIT:-

S.I. NO	GENERAL	
1	Switching system	
1.1	IP based switching equipment.	
1.2	Shall be equipped with all necessary sub systems/modules and one time licensed system software as required for whole life.	
1.3	High availability failover mechanism to switch from primary to secondary switch/ controller and vice-versa for hardware failure, software failure and network failure.	
2	Minimum No. of base station supported- 10 Nos	
3	Minimum No. of carriers station sites supported- 06 Nos	
4	Network should support at least 250 carriers.	
5	Minimum radio terminal support- 4000 which will include mobile/static/portable radio dispatchers and gateway etc (Higher specification will be acceptable).	
6	Minimum No. of talk groups- 50	
7	Dispatch console: minimum 2 Nos. or more per user requirement	
7.1	The dispatcher console shall be able to handle:	

	<p>a) Individual calls, group calls , all calls, broadcast calls, emergency calls and patched group calls</p> <p>b) Data services like status, SDS & free form text messaging</p> <p>c) calls shall be initiated by selecting call talk group(s) from the graphical display. the dispatch console shall have radio unable and disable / stun un – stun facility</p> <p>d) The dispatch console shall maintain call and activity log for audit.</p> <p>e) No call failure.</p>
8	Network management terminal (NMT)
8.1	<p>a) NMT shall work in closed captive network environment and should hot standby redundancy</p> <p>b) NMT shall be equipped with all necessary sub-system/modules and installed with necessary licensed software.</p> <p>c) The NMT shall provide map of the equipment in the network. Such as switch controllers, radio base stations, servers and work stations etc. in trunked radio system with status and alarm indication.</p> <p>d) NMT should display real time channel activity and store activity logging of system components.</p> <p>e) The NMT shall provide user friendly GUI to the NMS administrator and operators with pull-down menu, function keys, online helps screens, windows, colour pictures and statistical graphs for easy operation and interpretation of information.</p> <p>f) The call processing shall not affected by failure of network management system/terminal.</p>
8.2	Fault management : To monitor and to display the status and history of a system component and should also perform diagnostics when needed
8.3	<p>Voice call type : Group call, individual calls, emergency call, Broadcast call.</p> <p>Non voice call/data calls:</p> <p>a) Inhibit / un inhibit</p> <p>b) Authentication registration</p> <p>c) Status, short data messages</p> <p>d) Packed data transfer facility for customized application</p> <p>e) Shall support AVLS</p>
8.3	Scanning: Shall support talk group scan, priority scan
8.4	Late Entry: Shall support to Group calls.
8.5	<p>Fault Tolerance:</p> <p>a) In case of failure in network, isolated site shall be switched to single site Trunking mode at that time.</p> <p>b) In case of Base station failure, the user terminals should operate in fail soft mode.</p>
8.6	<p>Subscriber Management Feature:</p> <p>Add/remove subscribers</p> <p>a) Add/remove multiple subscribers</p> <p>b) Customize call type permissions</p> <p>c) Add/remove multiple talk groups</p> <p>d) Add a broadcast call group</p> <p>e) Add a system call group</p>
8.7	<p>System management features:</p> <p>a) Transmission trunking</p> <p>b) Subscriber unit registration/de-registration</p> <p>c) Group call with late entry. Talk group ID</p> <p>d) Broadcast group call. Unit to unit call</p> <p>e) Call queuing</p> <p>f) Status message. Short message</p> <p>g) Priority talk group monitor and override</p> <p>h) Radio check, radio inhibit/sun-inhibit</p> <p>i) Roaming</p> <p>j) Group location restrictions</p> <p>k) Subscriber location/restrictions</p>
8.8	Maintenance :license for OS, applications, recovery software and database backup feature.
9	Remote Killing: provision to kill or disable the radio remotely.
10	Accounting management: The accounting management feature shall have the capability of tracking the activity of radio users on the system and allow the customer to produce reports about the traffic on the system .
11	<p>Performance management :</p> <p>The performance feature shall have the capability to monitor , control and optimize the utilization</p>

	of system resources.
12	<p>Security management :</p> <ul style="list-style-type: none"> a) System should support multiple number of network management user accounts. b) Access rights to the various network management applications. c) Multiple levels of access rights to users for performing task with these applications <p>The security management feature shall have the capability of allowing the establishment of authorized log on names and passwords to NMS</p>
13	<p>Voice recording system:</p>
13.1	<p>The voice recording system shall support:</p> <ul style="list-style-type: none"> a) Minimum 16 Nos of channel and should be modularly expandable as per the user requirement b) Group call with in subscriber radios c) Call to and from dispatch console and subscribe radios d) Telephone call through telephone gateway . e) Calls through conventional Analog FM gateway with this metadata, i.e. Date, time, duration , PTT ID, Group ID. Etc. f) Provision to search records, replay the voice conversations, backup and restore facility should to be built in suitable GUI, application shall be provided g) Calls can be located and reply by radio ID, talk group, ID, alias, date/time criteria etc. h) Digital call recorder shall support Encryption. i) Data should be recorded in main site. j) The system have minimum 100 TB storage capacity and should be modularly expandable
14	Health status: Health status of Remote radio should be available in NMS.

**Detail Bill of Quantity. For Bhopal DMR – Tier III (for Annexure B)
For one BTS with 8 carrier.**

S.n.	Name of item	Qty.
1	Handheld Sets 3 Watt complete with accessories (software licence belt clip, battery, battery charger)	3000
2	Spare batteries	3000
3	H/H set programming cable, programming software, & soft and hard copy of service manual	05
4	25-watt Mobile radio complete with accessories including software licence, 0dB or Better whip antenna (Gutter mount) with 5 metre co-axial cable and suitable connector, microphone	454
5	Base set programming cable, programming software & soft and hard copy of service manual	05
6	25 watt Static complete with accessories including software licence, co-axial cable, power supply, microphone etc. 0 dB or better GP antenna with 30 metre coaxial cable RG-217 and suitable connector at both ends but cable is to be supplied in bundle not in pieces	46
7	BSU complete with accessories, software licence, DC battery power cable, 10dB omni directional Antenna with 60 metre Low loss coaxial cable 7/8" cable with combiner and coupler, Tower top amplifier with Suitable connector at both ends but cable is to supply in bundle not in pieces. (1 Lot antenna system as per specification (4.3.1- c - 4.1) for single site 8 carrier system.)	01
8	(a) Master control unit (b) NMT with hot standby redundancy (c) Voice recording system.	01
9	Dispatcher console hardware & software server with antivirus, headphone with mic and 2 in 1 audio jack, multimedia speaker system , cables .	02
10	Repeater programming cable, programming software & soft and hard copy of service manual	02
11	Installation commissioning	1 Job
12	stabilizer (11KVA)	01
13	Six position battery charger for hand held set Battery	10
14	2 ton AC for dispatcher site with five star rating (2021) with wall mounting stabilizer	01
15	10 KVA online sine wave UPS 6 hrs. backup with batteries for one BTS with 8 carriers system.	02
16	1+1 hot standby microwave RF link supporting 2.4/5.8Ghz (license free) frequency band between BTS site and Police control room with required switches & other accessories.	01

Technical specification of UPS 10 KVA

Input:-

Voltage Range	: 350 – 450 V AC
Frequency	: 50Hz +/-3%
Phase	: Three Phase + N

Output:-

Waveform	: Pure Sine Wave
Voltage Range	: 220V AC +/- 1%
Frequency	: 50 Hz +/- 0.5%
Total Harmonic Distortion	: <3% at no load.
Efficiency	: Overall Efficiency 90% or above
Power Factor	: 0.8 or better
Short Circuit	: Current Limitation, Shutdown Automatically

Protection:-

- a) Over voltage, short circuit and over load UPS output terminal
- b) Over shoot and under shoot shall not be greater than 4% of rated voltage duration of 40mili/s (maximum)

Indicators and meters

a.) Following Indicators shall be provided

1. Mains presence
2. Battery charging and discharging
3. Output overload
4. Low battery voltage.

b.) Digital meter shall be provided for monitoring the following parameters in UPS

1. Input AC voltage
2. Output AC voltage, current and frequency
3. Battery voltage and current

Battery:-

Type	: UPS should support to Sealed Acid, Maintenance-Free
DC	: 180-240V
Charge Time	: 90% Capacity after 8 Hours
Back up	: Min. 6 Hrs.

System:-

Control Technology : IGBT

Mandatory Provision :-

1. With isolation transformer
2. Generator compatible
3. EMI/RFI Filter
4. UPS shall supply output power and charging current at the same time.
5. Switching frequency shall be above 10 KHz and shall be declared in the offer.
6. Warranty : 3 year

Technical specification of 11 KVA Stabilizer

S.N.	Parameter	Specification
1	Rating	11KVA
2	Input voltage range	350V-470V
3	Nominal output voltage	400V
4	Output voltage accuracy	±1%
5	Line frequency variation	50Hz ± 2%
6	Control	Digital
7	Response time	10ms
8	LCD display	Date & Time ,Input voltage , Output voltage & Current
9	Cooling	Air cooled/Oil cooled
10	Efficiency	97%
11	Protection	a) Automatic switch-off against : Under/Over voltage ,Over load & short circuit b) Surge protection
12	Warranty	3 Year

4.3.3 :Annexure-c

POLICE RADIO DISTT.BHOPAL CITY STATION

Longitude/Latitude SOUTH					
S.No	Name Of Station	Near Land mark	Longitude	Latitude	PINCODE
1	PS SUKHISEVANIYA	NEW BYPASS VIDISHA ROAD	77,29',07.8"	23,21',07.5"	462010
2	PS RATIBAD	NAVODAY SCHOOL ROAD	77,19',17.15"	23,10',09.22"	462044
3	PS KAMLA NAGAR	NEAR KOTRA MARKET	77,23',43.95"	23,12',55.07"	462003
4	PS T.T. NAGAR	NEAR APEX BANK	77,24',01.13"	23,14',02.1"	462003
5	PS M.P. NAGAR	INFRONT OF DB MALL	77,25',43.92"	23,14',05.92"	462004
6	PS BAG SEVANIYA	NEAR BU BHOPAL	77,27',02.23"	23,11',33.79"	462026
7	PS MISROD	NEAR C21 MALL	77,28',09.22"	23,09'.43.86"	462026
8	PS BILKHIRIYA	RAISEN ROAD	77,34',16.70"	23,15',16.75"	462022
9	PS AYODHYA NGR	NEAR MINAL RESIDENCY	77,27',54.01"	23,16'37.14"	462041
10	PS PIPLANI	NEAR PIPLANI PETROL PUMP	77,28',20.05"	23,14',29.88"	462022
11	PS AWADHPURI	AWADHPURI	77,29',11.80"	23,13',10.30"	462022
12	PS GOVINDPURA	NEAR BHEL DUSHEHRA MAIDAN	77,27',15,40"	23,13',53.46"	462023
13	PS JAHANGIRABAD	SABBAN CHOURAHA	77,24',55.54"	23,14',49.15"	462008
14	PS BAJARIYA	RAILWAY OVER BRIDGE	77,24',46.46"	23,15',45.31"	462016
15	PS ASHOKA GARDEN	80 FEET ROAD	77,25',47.14"	23,15',40.47"	462023
16	PS ASHBAG	HOWKEY STADIUM	77,25',13.46"	23,15',18.90"	462010
17	PS ARERA HILLS	NEAR NCC OFFICE	77°24'23.8"	23°14'27.3"	462003
18	PS HABIBGANJ	NEAR BITHHAL MARKET	77,25',65.02"	23,13',00,8"	462016
19	PS AJK BPL	NEAR BITHHAL MARKET	77,25',65,02"	23,13',00,9"	462016
20	PS SAHPURA BPL	NEAR ORA MALL	77,25',91,07"	23,11',17.1"	462016
21	PS KOLAR	NEAR NAYAPURA BUS STAND	77,25',00,0"	23,10',20.08"	462042
22	PS CHUNABHATTI	NEAR CANAL	77,24',95.3"	23,11',85.5"	462016
23	PS KATARA HILLS	BAWADIYA KALA	77,30',16.3"	23,10',85.4"	462043

24	PS MAHILA THANA	OLD CONTROL ROOM	77,24',41.92"	23,14',36.35"	462008
25	PS TFC BPL	OLD CONTROL ROOM	77,24',37.90"	23,14',34.33"	462008
26	PS CRIME BPL	INFRONT OF DB MALL	77,25',45.97"	23,14',06.01"	462004
Longitude/Latitude NORTH					
S.No	Name Of Station	Near Land mark	Longitude	Latitude	PINCODE
1	PS HANUMANGANJ	NEAR NADRA BUS STAND	77,24',22.3"	23,15',55.30"	462001
2	PS CHOLA MANDIR	DASHAHARA MAIDAN	77,25',04.03"	23,16',46.61"	462001
3	PS NISHATPURA	NEAR KAROND CHOURAHA	77,24',13.84"	23,18',14.43"	462010
4	PS GOUTAM NGR	DIG BUNGLOW	77,24',12.23"	23,16',44.64"	462023
5	PS TALIYA	NEAR KALI MANDIR	77,23',28.63"	23,15',35.28"	462016
6	PS KOHEFIZA	STATE BANK CHOURAHA	77,23',15.83"	23,15',42.64"	462001
7	PS MAANGALWARA	AZAD MARKET	77,24',19.86"	23,15',38.67"	462016
8	PS KOTWALI	NEAR BUDHWARA CHOWK	77,24',12.78"	23,15',19.78"	462001
9	PS KHAJURI SADAK	NEAR CHIRAYU HOSPITAL	77,14',26.90"	23,14',30.58"	462030
10	PS BAIRAGARH	BAIRAGARH MARKET	77,20',29.16"	23,16',20.86"	462030
11	PS GANDHI NAGAR	RAJA BHOJ AIRPORT ROAD	77,20',41.25"	23,17',46.46"	462036
12	PS PARWALIYA	NEAR MUBARAKPUR	77,16',27.41"	23,20',12.18"	462030
13	PS SHYAMLA HILLS	NEAR CM HOUSE	77,23',32.93"	23,14',40.81"	462002
14	PS TILA JAMALPURA	NEAR MILLATRY GATE	77,23',45.41"	23,16',41.75"	462001
15	PS EITKHEDI	NEAR IZTIMA MAIDAN	77,23',57.0"	23,21',34.1"	462030
16	PS BAIRASIYA	BAIRASIYA	77,25',50.91"	23,37',14.62"	463106
17	PS NAZIRABAD	NAZIRABAD	77,15',19.56"	23,47',54.12"	462120
18	PS GUNGA	GUNGA	77,20',57.5"	23,27',08.6"	462101
19	PS SAHAJANABAD	NEAR MARGHATIYA MANDIR	77,23',43.8"	23,16',01.0"	462001

Section V. BID Proposal FORMS

FORM- I

**Bid Proposal Sheet
(Enclose with Pre-Qualification Bid)**

Tenderer's Proposal Reference Number and Date:		
Tenderer's Name and Address:		
Person to be contacted:		
Designation:		
Telephone No.	Fax No.	E-mail Id-

**To,
Sr. Supdt. of Police (Radio),
Police Telecommunication Head Quarters,
Bhadbhada Road, Bhopal
Bhopal – 462003**

Subject: Proposal for execution of Tender for Design, Supply, Installation and Commissioning of UHF Digital Radio Trunking (APCO25 Phase II/ DMR TIER –III) System on “Turn-key” Basis for Bhopal District for Police Telecommunication Head Quarters, Bhopal

Dear Sir,

We, the undersigned, having read and examined in detail the specifications and all proposal documents in respect of "Tender for Design, Supply, Installation and Commissioning of UHF Digital Radio Trunking (APCO25 Phase II/ DMR TIER –III) System on “Turn-key” Basis” and do hereby propose to make the supplies mentioned in the Tender document.

Price and Validity: All the prices mentioned in our proposal are in accordance with the terms as specified in the proposal documents. We do hereby confirm that our proposal includes all taxes, duties, charges (GST) FOR destination etc. We agree to abide by this bid for a period of 6 month from the opening date of financial bid and it shall remain binding upon us and may be accepted at any time before the expiration of that period. This bid together with your written acceptance thereof and your notification of award shall constitute a binding Contract between us. Offer is open for a period of six months from the date of execution of contract. During the period the M. P. Police will have right to demand additional quantity.

Deviations: We declare that all the services shall be performed strictly in accordance with technical specifications and other conditions of the Tender documents except the deviations as mentioned in the Technical Compliance Statement (**FORM- XI**) and Deviations from Tender Document Conditions (**FORM- XIII**). Further we agree that additional conditions, if any, found in the proposal documents, shall not be given effect to.

Time Schedule: We further declare that we have the capacity and shall deliver entire material with in delivery period as explained in **Clause No. 3.1** of the bid document.

Proposal Pricing: We further declare that the prices stated in our proposal are in accordance with your terms and conditions in the proposal document.

Qualifying Data: We confirm having submitted qualifying data as required by you in your Tender document. In case you require any further information / documentary proof in this regard before evaluation of our proposal, we agree to furnish the same.

Agreement Performance Security: We hereby declare that in case the contract is awarded to us, we shall submit Bank Guarantee as per terms and conditions of the Tender document and agreement of contract.

We hereby declare that our proposal is made in good faith, without collusion or fraud and the information contained in the proposal is true and correct to the best of our knowledge and belief and nothing is concealed.

The proposal submitted by us is properly sealed and prepared so as to prevent any subsequent alteration and replacement.

We understand that you are not bound to accept the lowest or any proposal you may receive. The undersigned is competent and duly authorized by the tenderer company/entity to sign this document. We further agree to adhere to ethical standard set by you in this document and all such other instructions on the issue by the Government of India and Government of M.P.

Thanking You

Yours faithfully

(Signature)

Name: -----

Date: -----

Designation & Authority: -----

Place: -----

Seal: -----

Business Address: -----

FORM- II

(Particulars and Financial Status Form)
The Particulars of the Tenderer
(To be enclosed with Pre-Qualification Bid)

(TO BE FILLED UP BY THE TENDERER)

S. No.	Particulars	Bidder Statement	Page No.
1.	Tender for the item.		
2.	Name of Make / Model No. of Item (Details of Manufacturer of the item)		
3.	Name and full address of the Tenderer		
3A	Whether Proprietary firm / Public limited Company or private Ltd. Co. or Partnership firm or any other entity (Give details)		
3B	If single proprietor, then give Name and address of the Proprietor liabilities.		
3C	If partnership firm, Name and address of the partners and their respective liabilities.		
3D	a. In case of a company, details of Director, Managing Director etc. and their respective liabilities in carrying this tender and discharge of subsequent agreement in pursuance this tender.		
3E	b. In other cases, details of liability of the bidder in the business entity, for default on the contractual obligations under the tender and for veracity of information being submitted in this bid.		
	Whether tenderer has any shop / factory / support center or other establishment is in M.P.? If so, provides details of address of the same and the activity carried on there. (Attach details of local support center as prescribed in Form- XII)		
4.	Registered Office with full address, Telephone No(s), Fax no(s), E-mail address, Website URL.		
5.	Attested certificate of Registration with Registration No. of tendering firm under Company Act 1956/2013 Indian Partnership Act or proprietary firm or any other law for the time being force.		
6.	Date of Establishment of tendering firm.		
7.	Production Place & Production Year of Item, if tenderer himself manufactures the quoted item		
7A	If Tenderer/Bidder, themselves are not manufacturer, then provide Name, Address and details of Manufacturer. The consent/authorization letter of the manufacturer/OEM to participate in this tender should be attached in Form- V .		
8. (a)	Annual production capacity of item of the OEM and order already at hand to be executed, by the O.E.M. [Please see Clause 1.5.3]		

(b)	(i) Quantity [for the item tendered] already in stock of bidder and its OEM.		
	(ii) Quantity supplied to other purchasers during previous three F.Y.		
	(iii) Quantity for which supply orders for other purchasers are already in hand to be executed by the bidder in this F.Y.		
9.	Income Tax Registration number (PAN) of Bidder.		
10.	Self Attested Income Tax Return for F.Y. 2019-20, 2020-21, 2021-22 [submit copies]		
11.	GST Registration No.		
12.	Self Attested GST Return for F.Y. 2019-20, 2020-21, 2021-22 [submit copies]		
13.	Annual turnover of the tendering firm F.Y. 2019-20, 2020-21, 2021-22 [attach proof as per FORM – IV] [Please see Clause 1.5.4]		
14.	Data for executed purchase order received in favor of Digital UHF wireless sets with accessories as per FORM - IX [Please see Clause 1.5.6]		
15.	Name and addresses and designation of the persons who will represent the Tenderer while dealing with the Police Telecom. Head quarter, M.P., Bhopal (Attach letter of authority)		

(Tenderer may use separate blank sheets if the information being large does not fit in to the space given above.)

Date: -----
Place: -----
Signed: -----
Name: -----
Designation: -----
For and on behalf of: -----

FORM –III

**(Enclose with Pre-Qualification Bid)
(PQ)/Eligibility Conditions
(Tick where applicable)**

S. No.	Qualifications	Type of the documents	Page No.	Status	Remarks
1	Legal Entity	Refer relevant stipulation in para 1.5.1			The copy of registration certificate of firm / certificate of incorporation under company act 1956/2013 and Articles of Association/Memorandum of Association must be enclosed.
2	Existing business in Digital VHF/UHF wireless sets	Refer relevant stipulation in para 1.5.2			The latest certificate issued by Chartered Accountant must be enclosed.
2a	Registration	Shop Establishment Registration			Under Establishment Act (Gumasta/B.R.Certificate) Encl. latest certificate.
3	OEM Authorization	Refer relevant stipulation in para 1.5.3			The letter of authorization signed by OEM in the enclosed prescribed Form - V and other relevant documents must be enclosed.
4	Turnover	Refer relevant stipulation in para 1.5.4 and 1.5.5			- A Copy of audited balance sheet of last three financial year must be enclosed. -Submit ITR Acknowledgement form 26 As ITR-5 - Submit certificate in Form IV . - Form IV should be counter signed by bidder's chartered Accountant also.
5	Experience in Digital VHF/UHF/Trunking/ APCO 25 Phase-I/Phase-II/DMR-II /DMR-III Wireless sets	Refer relevant stipulation in para 1.5.6			Copy of P.Os/Supply Orders, Completion Certificate of buyer organization, performance statement, and all other relevant Information/documents as per the requirement must be enclosed. - Furnish Form-IX
6	Blacklisting	Refer relevant stipulation in para 1.5.8			Declaration certificate must be enclosed. - Submit Form-VII
7	Statutory Tax Compliance	Refer relevant stipulation in para 1.5.9			Registration certificates of concerning Taxes and PAN must be enclosed.
8	Product declaration	Refer relevant stipulation in para 1.5.10			A letter to this extent from OEM is to be attached as a confirmation in given format Form-V .

Date: -----
Place: -----
Signed: -----
Name: -----
Designation: -----
For and on behalf of: -----

FORM – IV

Financial Status of tenderer (Supplier) within last Three financial years

(Must be enclosed with the “Pre-Qualification Bid”)

[See Clause 1.5.4 and 1.5.6]

Full Name of Tenderer (Supplier) Firm :					
Full Address of Tenderer (Supplier) Firm :					
Phone No. :					
Fax No. :					
E-mail :					
S.No.	Financial Year	Annual Turnover of Tenderer/ Supplier Firm (in Indian Rupees)	Turnover on account of supply of Wireless sets & accessories	Audited Balance sheet enclosed (Page No.)	Net Profit after tax payment (in Indian Rupees)
1	2	3	4	5	6
1	2019-20				
2	2020-21				
3	2021-22				

* For all F.Y. the balance sheet need to be duly audited by C.A.

Signature of chartered Accountant

Signature

Name

Name

Business Address.....

& Seal of the Tenderer (Supplier)

.....

Firm Name, if any Contact No.

Seal

Registration No. with Institute of

Chartered Accountants of India.....

FORM – V

OEM / MANUFACTURERS AUTHORIZATION CERTIFICATE
(Must be enclosed with Pre-Qualification Bid)

(On the letter head of OEM carrying address, contact numbers, TIN number with sign and seal of
authorized signatory)

It is certified that:-

1. M/s _____ are our authorized dealers/distributors and they have been authorized to quote and sell(name of equipment or part with full details) and (Accessories) Make/ Model No.----- manufactured by us to MP Police.
2. We certify that product quoted are latest version and not going to be end of life in ten years. We undertake that the support including spares, updates patches, security patches, hot & bug fixes and wireless sets batteries for the quoted product shall be available for minimum ten years.
3. We undertake to provide them all necessary support for providing effective after sale services.
4. After assessing the financial status and our contractual understanding with the above authorized firm, it is also certified that we will provide adequate quantity of quoted item within the given supply period (i.e. 60 days from date of order or date of handing over WOL, which is later, to above authorized firm by the purchaser) to enable the bidder to perform its bid obligations. It is further certified that this undertaking is being given after assessing our manufacturing capacity, stock position and supply orders already in hand yet to be executed within this period.
5. **An engineer/technician from OEM with technical knowledge and experience of installation of system must be made available during installation and commissioning of the system. Undertaking/Letter from OEM must be submitted.**
6. **Concerning brochure of quoted make & model with technical specifications should also enclosed with duly certified.**

Authorized signatory
(Signature, Name, designation,
contact address and Telephone number)
Seal

FORM – VI

UNDERTAKING
(Must be enclosed with the “Pre-Qualification Bid”)

(On the Letterhead of the Participant bidder firm/ Company)

I.....
S/oShri.....
Resident of

Being Director / Proprietor / Partner of M/s.....
.....whose GST Registration No. is
.....Income Tax PAN No. is
.....and GST No. is
.....hereby give consent to The Police
Telecom Head Quarters, Bhadbhada Road Bhopal to deduct from our Bills whatever Amount is
payable by us on account of the necessary Tax dues .

Place :-

Date :-

Signature:-

Name:-

Post:-

Seal:-

FORM - VII

(DECLARATION)

(Must be enclosed with the “Pre-Qualification Bid”)

1. I, (Name of M.D./ Proprietor of firm).....son of.....of M/s (Name of firm and full Address).....
.....have read all the terms and conditions of the tender given above. These are acceptable to me.
2. Earnest Money deposited online vide Reference/Receipt No. _____ Dtd _____ of Rs.....(In words) in favour of Sr. Supdt. Of Police (Radio), MadhyaPradesh, Bhopal-462003 payable at Bhopal, is enclosed herewith.
3. I, (Name of M.D./ Proprietor of firm).....son of.....of M/s (Name of firm and full Address).....
.....certified that we are registered and experienced firm for this work and truly manufacturing / trading since(date).
4. We also certified that we are not black listed by any state or central Govt. / University / Bank / Corporation / Autonomous institute etc.
5. Each page of tender documents is duly signed with seal by us.
6. We undertake to adhere the ethical commitment as required in this tender mandated by the law.

Place :

Date :

Signature

Name&Seal

of the Tenderer
(Supplier)

FORM – VIII

**Non- Malicious Code IPR, Patent, Design and Copyright Certificate
(Must be enclosed with the “Pre-Qualification Bid”)**

[On the letterhead of the OEM]

Sub: Non-Malicious Code IPR, Patent, Design and Copyright Certificate

1. I/We hereby certify that the equipment hardware, firmware software, driver software, application software, or any other item being offered or to be provided to run the hardware, software or equipment as part of the contract does not and will not contain any kind of malicious code that would activate procedures to:
 - a. Inhibit the desired and the designed function of the equipment / solution.
 - b. Cause damage to the user or his equipment / solution during the operational exploitation of the equipment / solution.
 - c. Tap information regarding network, network users and information stored on the network that is classified and / or relating to National Security, thereby contravening any Indian law.
2. We shall not purchase or use the goods for the performance of work which would infringe any Indian or foreign patent, trademark, registered design or other intellectual property rights, whether or not similar to any of the said goods.
3. We shall indemnify the Competent Authority from all actions, costs, claims, demands, expenses & liabilities whatsoever resulting from any actual or alleged infringement as aforesaid and at the expenses of Tenderer shall be defended in the defense of any proceedings which may be brought in that connection.
4. We further certified that no goods covered by the contract have been manufactured, sold, disposed or done by us in violation of any right whatsoever of third party, and in particular, but without prejudice to the generality of the foregoing of any patent right, trademark, design or similar right, or of any charge, mortgage or lien.
5. We undertake to be liable under Information Technology Act, 2000, Indian Penal Code 1860 and all the other Indian laws and laws relating to copyright, design, patents and Intellectual Property rights (IPRs), for any loss to purchaser caused due to activation of any such malicious code in offered / developed software, hardware, equipment etc.

Yours faithfully,
Authorized Signatory
Designation

FORM – IX

COMPLETION/PERFORMANCE STATEMENT

(Must be enclosed with the “Pre-Qualification Bid”)

S. no	Financial Year	Name, address and Telephone no and fax no of purchaser to whom Digital VHF/UHF Wireless Sets with accessories has been supplied	Description of the sold Digital UHF/Trunking/APCO 25 Phase II/DMR-III Wireless sets with accessories Name of Make & Model	Quantity of sold Digital UHF/Trunking/APCO 25 Phase II/DMR-III Wireless sets with accessories	Purchase Order No. & Date issued by Purchaser	Value of contract / Purchase Order	Completion/Performance certificate from customer Date/ No. /attached at Page No.

As of this date, the information furnished in all parts of this form is accurate and true to the best of my knowledge. I have no objection in getting this information verified by the purchaser in any covert or open manner, as the latter may deem fit.

Date:

Place:

Signed:

Name:

Designation:

For and on behalf of:

FORM – X

BILL OF QUANTITY (BOQ)

(Must be enclosed with the “**Technical Bid**”)

Bidder will provide the BOQ as per their offered/ quoted technology as annexure A or B given on RFP page no. 24 & 31 respectively.

Note: The bidder needs to provide the itemized cost for each item (as per the RFP clauses) in Financial Bid.

Date: -----

Place: -----

Signed: -----

Name: -----

In the capacity of: -----

For and on behalf of: -----

FORM – XI

Technical Compliance Statement

Detailed Compliance statement is to be provided by all Tenderer against each line item in Section-IV, Clause- 4.3

(Must be enclosed with the “**Technical Bid**”)

Detailed Compliance Statement is to be provided by all Tenderer against each line item in Section IV Failure to provide compliance will lead bid being summarily rejected.

Sr. No.	Specification stated in Section IV	Detail of Items offered by Tenderer				
		Company and Brand Name	1. Make 2. Series 3. Model	Specification	Deviation if any	Supporting certificate related to specification as and where required according to the RFP (Bid Page no.)

[Specifications included warranty, maintenance and service conditions specified for each item in details at **Clause- 4.3**. It would also include the commitment to provide spares for next 10 years at agreed price.]

(*Attach Manufacturer's brochures / pamphlets)

Date:

Place:

Signed:

Name:

Designation:

For and on behalf of:

FORM – XII

TECHNICAL PERSONNEL STATEMENT

(Must be enclosed with Technical Bid)

Detailed information of **local support** center within M.P. State & personnel deployed there is to be provided by Tenderer.

S.No.	Name	Designation	Qualification	Contact No.	Full address of Local service center

I/We hereby certify that I/we are capable of providing services/support to the purchaser for warranty and maintenance services at FOR, independent of OEM/principles. We further reiterate that we have required arrangement (legal and contractual) with the OEM/principles to ensure supply of spares to the purchaser for next 10 year from the date of execution of contract.

Date: -----

Place: -----

Signed: -----

Name: -----

Designation: -----

For and on behalf of: -----

FORM –XIII

Deviation Statement

(Must be enclosed with Technical Bid)

Deviations from Clause No. 4.3 of Section-IV and Tender Document Conditions (if any)

Sl no	Clause no	Page no	Deviations, if any	Reasons
1				
2				
3				
4				

Date: -----

Place: -----

Signed: -----

Name: -----

Designation: -----

For and on behalf of: -----

FORM – XIV

FINANCIAL BID

Note:- Financial Bid with price in INR must be submitted online in the prescribed formats of BOQ.

FORM – XV

(Price List of Spare Parts)

(This Form must be submitted with Financial Bid Form XIV)

Tenderer shall provide spare parts, Rate list for such spares as may be required quantity after warranty period, shall be provided by the tenderer in the prescribed format as under in financial bid envelop.

S.No.	Name of Spare parts	Part No. / Item code	Unit Rate in Rs. Including all taxes

Date: -----

Place: -----

Signed: -----

Name: -----

Designation: -----

For and on behalf of: -----

**कार्यालय पुलिस दूरसंचार मुख्यालय, मध्यप्रदेश,
भदभदा रोड, भोपाल.-462003
Fax No. 0755-2443674, E-mail: sspradiompbpl@gmail.com**

क्रमांक – पु.दू.मु./क्रय/यूएचएफ/ट्रंकिंग/भोपाल/एफ- 408 /2022, दिनांक 25/05/2022

(प्री-बिड क्वेशरी रिस्पांस अनुसार संशोधित)

ई-निविदा सूचना

पुलिस महानिदेशक मध्यप्रदेश की ओर से वरिष्ठ पुलिस अधीक्षक (रेडियो) मध्यप्रदेश भोपाल द्वारा नीचे दर्शित तालिका अनुसार निम्नलिखित सामग्रियों हेतु ऑनलाईन ई-निविदा आमंत्रित की जाती है :-

S.no.	Name of Item	Tender Fee	Required EMD
1	Design, Supply, Installation and Commissioning of UHF Digital Radio Trunking System on “Turn-key” Basis for Bhopal District		
a	APCO-25 Phase-II Technology as per given BOQ Annexure-A	30,000/-	40,00,000/-
	OR		
b	DMR Tier-III Technology as per given BOQ Annexure-B		

- निविदा प्रपत्र का मूल्य (निविदा शुल्क) किसी भी स्थिति में वापसी योग्य नहीं होगा और ना ही इसमें किसी प्रकार की छूट दी जावेगी।
- सुरक्षा निधि की राशि एवं निविदा शुल्क वरिष्ठ पुलिस अधीक्षक (रेडियो) मध्य प्रदेश, भोपाल के नाम से आनलाईन वेबसाइट <https://www.mptenders.gov.in> पर आवश्यक रूप से जमा करना होगा।
- म.प्र. पुलिस की वेबसाइट www.mppolice.gov.in पर निविदा प्रपत्र एवं विस्तृत जानकारी डाउनलोड की जा सकती है।
- यह एक टर्न-की प्रोजेक्ट है।
- शेड्यूल
 - निविदा प्रपत्र क्रय/डाउनलोड प्रारम्भ करने की तिथि : 25/05/2022 के 1800 बजे से
 - ऑनलाईन निविदा जमा करने की प्रारम्भ तिथि : 05/08/2022 के 1800 बजे से
 - ऑनलाईन निविदा जमा करने की अंतिम तिथि : 20/08/2022 के 1700 बजे तक
 - प्री-क्वालिफिकेशन निविदा खोलने की तिथि : 22/08/2022 के 1200 बजे

वरिष्ठ पुलिस अधीक्षक (रेडियो)
म.प्र. भोपाल