

**PUNJAB INFRASTRUCTURE DEVELOPMENT
BOARD**

TENDER

FOR INSTALLATION

OF

AUDIO VISUAL SYSTEM

IN PIDB CONFERENCE HALL

Issued by

Punjab Infrastructure Development Board
Sco – 33-34-35
Sector 34 - A
Chandigarh

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To,

Chef General Manager
Punjab Infrastructure development Board
Sco – 33-34-35
Sector 34 A
Chandigarh

TENDER FOR INSTALLATION OF AUDIO VISUAL SYSTEM IN PIDB CONFERENCE HALL

Dated: 27th August 2010

1. Bids in sealed cover are invited for supply of items/ equipments listed in **Appendix-B** of this Tender Document. Please super scribe the above mentioned Title, Tender number and date of opening of the Bids on the sealed cover to avoid the Bid being declared invalid.
2. The address and contact numbers for sending Bids or seeking clarifications regarding this Tender are given below –
 - (a) Bids/queries to be addressed to : **Chief General Manager, PIDB**
 - (b) Postal address for sending the Bids : **Chief General Manager
PIDB, SCO 33-35,
Sector 34-A, Chandigarh
PIN-160022**
 - (c) Designation of the contact personnel : Chief General Manager, PIDB
 - (d) Telephone numbers of the contact personnel :Tel: 0172-2665417
 - (e) E-mail id of contact personnel : mdpidb@glide.net.in
 - (f) Fax number : 0172-2665596
3. This Tender document contains the following information as follows:
 - (a) Contains General Information and Instructions for the Bidders about the Tender such as the time, place of submission and opening of Tenders, Validity Period of Tenders, etc.
 - (b) Contains essential details of the items/equipments/services required, such as the Operational and Functional Requirements, Technical Specifications, Delivery Period, Mode of Delivery, etc.

- (c) Contains Standard Conditions of Tender, which will form part of the Work Order, as issued to the Successful Bidder.
 - (d) Contains Conditions applicable to this Tender and which will also form part of the Work Order, as issued to the Successful Bidder.
 - (e) Contains Evaluation Criteria and Format for Financial Bids.
4. **NOTE:** - This Tender Document is being issued with no financial commitment and PIDB (the "Client") reserves the right to change or vary any part thereof at any stage. The Client also reserves the right to withdraw the Tender, should it become necessary at any stage.

1. GENERAL INFORMATION

1.1 Clarifications: All clarifications regarding this Tender shall be enquired from the PIDB office by the prospective Bidders.

1.2 Last date and time for depositing the Bids: 1100 hrs on 10th September 2010 ("Due date" of submission of Bids)

The bidders who have downloaded the Tender Document from the web site i.e. www.pidb.org shall pay for the same via a demand draft of Rs. 2500/- in favour of PIDB, payable at Chandigarh.

The sealed Bids (both Technical and Financial are called for) should be submitted and should reach by the Due Date and time. The responsibility to ensure this lies with the Bidder.

1.3 Submission of Bids:

(a) Sealed Bids should be either submitted by hand in the office of PIDB or sent by registered post at the address given above so as to reach by the Due Date and time. Late Tenders/ Bids shall not be considered. No responsibility shall be taken for postal delay or non delivery/non-receipt of Bid documents. Bids sent by FAX or e-mail shall not be considered (unless they have been specifically called for by these modes due to urgency).

(b) Since the entire requirement is being procured on **turnkey basis** (supply, installation and commissioning) where the equipments/ items offered by the Bidder, customized to the requirement of the Client, is of prime importance, you are requested to put your Bids in two separate parts, i.e. Technical and Financial. **Technical and Financial Bids and Earnest Money Deposit (EMD) will be submitted in separate envelopes marked "Technical Bid for Installation of Audio visual System in PIDB Conference Hall", "Financial Offer for Installation of Audio visual System in PIDB Conference Hall"** (Refer Appendix-A: Format of Financial Bid Submission) and **"Earnest Money Deposit (EMD) for Installation of Audio visual System in PIDB Conference Hall"** respectively. The Bidder submitting the Bid in the format as provided in the Tender Document shall only be considered valid.

1.4 Time and date for opening of Technical Bids: 1200hrs on 10th September 2010

(If due to any exigency, the Due Date for opening of the Bids is declared as a closed holiday, the Bids will be opened on the next working day at the same time or on any other day/time, as intimated by the Client).

1.5 Location of the Tender Submission: PIDB, SCO-33-34-35, Sector 34-A, Chandigarh-160022.

Only those Bids that are submitted on or before the Due Date and time will be opened. Bids submitted after the Due Date and time shall be rendered invalid and shall be outrightly rejected.

- 1.6 Place of opening of the Bids: Committee Room, PIDB, SCO-33-34-35, Sector 34A, Chandigarh- 160022.**
The Bidders may depute their representatives, duly authorized in writing, to attend the opening of the Technical Bids on the Due Date and time. This event shall not be postponed due to non-presence of any of the Bidder's representative.
- 1.7 Two-Bid system:** Only the Technical Bids would be opened on the time and date mentioned above. Date of opening of the Financial Bids will be intimated after evaluation/examination and acceptance of the Technical Bids. The Financial Bids of only those Bidders will be opened, whose Technical Bids are found compliant/suitable after Technical evaluation is done by the Client.
- 1.8 Forwarding of Bids:** Bids should be forwarded by the Bidders under their original memo/letter pad, inter alia for furnishing details like TIN number, VAT/CST number, Bank address, etc. and complete postal & e-mail address of their office.
- 1.9 Modification and Withdrawal of Bids:** A Bidder may modify or withdraw its bid after submission, provided that the written notice of modification or withdrawal is received by the Client prior to deadline prescribed for submission of Bids. A withdrawal notice may be sent by fax but it should be followed by a signed confirmation copy to be sent by post. No Bid shall be modified after the deadline for submission of Bids. No Bid may be withdrawn in the interval between the Due Date for submission of Bids and expiration of the period of bid validity period as specified. Withdrawal of a Bid during this period will result in forfeiture of Bid Security, as submitted by the Bidder.
- 1.10 Clarification regarding contents of the Bids:** During evaluation and comparison of Bids, the Client may, at its discretion, ask the Bidder for clarification of its Bid. The request for clarification will be given in writing and no change in prices (Financial Bid) or substance of the Bid will be sought, offered or permitted. No post-bid clarification on the initiative of the Bidder will be entertained.
- 1.11 Rejection of Bids:** Canvassing by the Bidder in any form, unsolicited letter and post-tender correction may invoke summary rejection with forfeiture of EMD. Conditional tenders will be rejected.
- 1.12 Earnest Money Deposit:** Bidders are required to submit Earnest Money Deposit (EMD) for amount of **Rs 1 Lakh (Rupees One Lakh only)** along with their Bids. The EMD may be submitted in the form of a Demand Draft in favour of PIDB from any of the public sector banks or a private sector bank authorized to conduct government business. EMD is to remain valid for a period of 45 (forty-five) days beyond the final bid validity period. EMD of the unsuccessful bidders will be returned to them at the earliest after expiry of the final bid validity period and latest on or before the 30th day after the issuance of the Work Order. The Bid Security of the Successful Bidder (the "Seller") would be returned, without any interest whatsoever, after the receipt of Performance Security from them as called for in the Work Order. The EMD shall be forfeited if the Bidder withdraws or amends, impairs or derogates from the Tender in any respect within the bid validity period of their Tender.

2. ESSENTIAL DETAILS OF ITEMS/SERVICES REQUIRED

2.1 Operational and Functional Requirements: **Appendix-A**

2.2 Details of Items: **Appendix-B**

2.3 Schematic Diagram and Layout Plan of PIDB Conference Hall: **Appendix-C**

2.4 Layout of Display Items/Equipment: **Appendix-D**

2.5 Technical Specifications of Items: **Appendix-E**

2.6 Format of Financial Bid: **Appendix-F**

2.7 **Two Bid Systems**: Bidders are required to furnish clause by clause compliance of specifications bringing out clearly the deviations from specifications, if any. The Bidders are advised to submit the compliance statement in the same format as given in **Appendix-B**. You are requested to give only one option and, in case multiple options are given, the customer reserves the right to choose most suitable one. All pages of the Bids shall be duly authenticated by affixing company's stamp and signature of authorities signatory.

2.8 **Delivery Schedule**: The supply should commence immediately from the date of issue of Work Order to the firm and should be completed as per the following delivery Schedule:

Sr. No.	Activity	Time Schedule
1.	Unconditional Acceptance of Work Order	Z ("Z" – zero date)
2.	Physical Receipt of materials and acceptance of hardware	Z+1 week
3.	Installation and Commissioning	Z+2 weeks
4.	Complete completion and commissioning in all respect	Z+3 weeks

Extension of contracted delivery period shall be at the sole discretion of the Client, with applicability of the Liquidated Damages (LD) clause.

2.9 **Training**: The Successful Bidder (the "Seller") will provide training on the integrated system for selected personnel for 3 (three) working days at PIDB office.

2.10 **Training manuals**: The Seller will provide all manuals required to maintain the system. The following will also be provided free of cost:-

- (a) User manual.
- (b) Technical manual.
- (c) Any other supporting literature

2.11 **Client Details:**

Chief General Manager
PIDB
SCO 33-34-35
Chandigarh 160022

3. **STANDARD CONDITIONS OF THE TENDER DOCUMENT**

The Bidder is required to give confirmation of their acceptance of the Standard Conditions of the Request for Proposal mentioned below which will automatically be considered as part of the Work Order issued to the Successful Bidder (i.e. Seller) as selected by the Client. Failure to do so may result in rejection of the Bid submitted by the Bidder.

3.1 Effective Date of the Work Order: The Work Order shall come into effect on the date of signing & its unconditional acceptance of the Work Order (Effective Date) along with the requisite Performance Security (as per Clause 4.1) within 7 (seven) days from the date of receipt of the Work Order, and shall remain valid until the completion of the obligations of the Parties, as laid down in the Appendices attached with the Work Order. The deliveries of equipments/items and performance of the services shall commence from the Effective Date.

3.2 Arbitration: The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with the Agreement or its interpretation. In the event that the Parties are unable to resolve the dispute(s) amicably, the Parties shall submit the dispute for adjudication by the Punjab Infrastructure Regulatory Authority (PIRA) established under Section 4 of the Punjab Infrastructure (Development and Regulation) Act, 2002.

3.3 Liquidated Damages: In the event of the Seller's failure to submit the Guarantees and Documents, supply of the equipments/items/goods and conduct trials, installation of equipment, training, etc. as per Delivery Schedule (Clause 2.7), the Client may, at his discretion, withhold any payment until the completion of the Work Order and Services. The Client may also deduct from the Seller as agreed, Liquidated Damages to the sum of 0.5% of the Contract Price of the delayed/undelivered equipments/items/services mentioned above for each and every day of delay or part of a week, subject to the maximum value of the Liquidated Damages being not higher than 10% (ten percent) of the value of delayed equipments/items.

3.4 Termination of Work Order/Services: The Client shall have the right to terminate this Work Order in part or in full in any of the following cases:-

- (a) The delivery of the material/equipments/items is delayed for more than **1 (One) week** after the scheduled date of delivery.
- (b) The Seller is declared bankrupt or becomes insolvent.
- (c) As per decision of PIRA. .

- 3.5 Notices:** Any notice required to be issued to the Seller/ Client shall be written in the English language and may be delivered personally or may be sent by FAX or registered pre-paid mail/airmail, addressed to the last known address of the party to whom it is sent.
- 3.6 Sub-letting:** The Seller shall have the right to sub-let the obligations or any part thereof. However, the Seller shall take due approval from the Client and all times during the fulfilment of all or any of the obligations as per the Work Order, the Seller shall be held wholly liable towards the Client.
- 3.7 Patents and other Industrial Property Rights:** The prices stated in the Financial Bid shall be deemed to include all amounts payable for the use of patents, copyrights, registered charges, trademarks and payments for any other industrial property rights. The Seller shall indemnify the Client against all claims from a third party at any time on account of the infringement of any or all the rights mentioned in the previous paragraphs, whether such claims arise in respect of manufacture or use. The Seller shall be responsible for the completion of the supplies/equipments/items including spares, tools, technical literature and training aggregates irrespective of the fact of infringement of the supplies, irrespective of the fact of infringement of any or all the rights mentioned above.
- 3.8 Amendments:** No provision of Work Order and the attached Appendices shall be changed or modified in any way (including this provision) either in whole or in part except by an instrument in writing made after the Effective Date and signed on behalf of both the Parties and which expressly states to amend the Work Order and the attached Appendices.
- 3.9 Taxes and Duties:** All applicable taxes and duties including customs duty, excise duty, sales tax/ VAT, octroi duty, local taxes, etc. or any other applicable taxes (both retrospective and prospective) from time to time shall be borne by the Seller / Successful Bidder/Bidder.

4. CONDITIONS OF TENDER DOCUMENT

The Bidder is required to give confirmation of their acceptance of Conditions of the Tender mentioned below which will automatically be considered as part of the Work Order issued and accepted by the Successful Bidder (i.e. Seller) as selected by the Client. Failure to do so may result in rejection of Bid submitted by the Bidder.

- 4.1 Performance Security:** The Bidder shall be required to furnish a Performance Security by way of Unconditional and Irrevocable Bank Guarantee through a public sector bank or a private sector bank authorized to conduct government business for a sum equal to 10% (ten percent) of the Contract Price within 7 (seven) days of receipt of the Work Order. Performance Security should be valid up to 60 (sixty) days beyond the date of warranty.
- 4.2 Variation:** Client reserves the right to **20%** (twenty percent) plus/minus increase or decrease the quantity of the required goods/ items/ equipments upto that limit without any change in the terms & conditions and prices quoted by the Seller.

While issuing the Work Order, the quantity ordered can be increased or decreased by the Client within this tolerance limit.

- 4.3 Payment Terms:** It will be mandatory for the Bidders to indicate their bank account numbers and other relevant repayment details so that payments could be made through other mechanism instead of payment through cheques, wherever feasible. The payment will be made as per the following terms, on production of the requisite documents:
- (a) The Work Order Contract Price arrived at, will not be subjected to any escalation, whatsoever.
 - (b) 20% (Twenty Percent) of the order value will be paid on physical receipt of materials and acceptance of hardware as per bill of materials by the board of officers detailed by the Client.
 - (c) 40% (Forty Percent) of the order value would be paid on satisfactory installation and integration of the system and acceptance of the same by the PIDB board of officers detailed by the Client.
 - (d) 30% (Thirty Percent) of the order value would be paid on satisfactory performance of items procured and rendering of "Installation and Continuous Trouble Free and Satisfactory Functional Performance" certificate by the PIDB.
 - (e) 10% (Ten Percent) of the total project cost will be paid on completion of training of selected PIDB personnel's.
- 4.4 Funding Authority:** The payment of bills will be made on submission of the ink signed copy of Seller's bill by the Seller to the Client i.e. **PIDB, SCO 33-34-35, Sector 34-A, Chandigarh:**
- 4.5 Original Component Manufacturer (OEM) Certificate:** In case the Bidder is not the OEM, the agreement certificate with the OEM for sourcing the spares shall be mandatory. However, where OEMs do not exist, minor aggregates and spares can be sourced from authorized Sellers subject to quality certification.
- 4.6 Quality:** The quality of the equipments/ items delivered according to the Work Order shall correspond to the technical conditions and standards laid down in this document. The Seller confirms that the equipments/ items to be supplied shall be new, and shall incorporate all the latest improvements and modifications thereto and spares of improved and modified equipment are backward integrated and interchangeable with same equipment supplied by the Seller in the past if any. The Seller shall supply an interchangeability certificate along with the changed part numbers wherein it should be mentioned that item would provide as much life as the original item.
- 4.7 Quality Assurance:** Seller shall be required to provide all test facilities for acceptance and inspection by Client. The item shall be of the latest manufacture, conforming to the current production standard and having 100% defined life at the time of delivery.

4.8 Warranty: The following Warranty will form part of the Work Order contract placed on the Seller/Successful Bidder –

- (a) The Seller warrants that the goods supplied conform to technical specifications prescribed and shall perform according to the said technical specifications.
- (b) The Seller warrants for a period of **24 (twenty four) months** from the date of acceptance of equipments/ items by Joint Receipt Inspection or date of installation and commissioning, whichever is later, that the goods supplied under the Work Order and each component used in the manufacture thereof shall be free from all types of defects/failures.
- (c) If within the period of Warranty, the goods are reported by the Client to have failed to perform as per the specifications, the Seller shall either replace or rectify the same free of charge, within a maximum period of 3 days of notification of such defect received by the Seller.

4.9 Annual Maintenance Contract (AMC) Clause: The following AMC clause shall form part of the Work Order contract placed on the Seller/Successful Bidder :-

- (a) The Seller shall provide comprehensive AMC for a period of 5 (five) years. The AMC services shall cover the repair and maintenance of all the equipment and systems purchased under this Work Order. The Client furnished equipment, which is not covered under the purview of the AMC shall be separately listed by the Seller. The AMC services shall be provided in 2 (two) distinct ways:
 - (i) **Preventive Maintenance Service:** The Seller shall provide a minimum of 4 (four) Preventive Maintenance Service visits during a year to the operating base to carry out functional check ups and minor adjustments/ tuning as may be required.
 - (ii) **Breakdown Maintenance Service:** In case of any breakdown of the equipment /system, on receiving a call from the Client, the Seller is to provide maintenance service to make the equipment/system serviceable.
- (b) Response time: The response time of the Seller shall not exceed 24 (twenty four) hours from the time the breakdown intimation is provided by the Client.
- (c) Required spares shall be stored at site by the Seller at its own cost.
- (d) Maximum repair turnaround time for equipments shall be 3 (three) days. However, the spares should be maintained in a serviceable condition to avoid complete breakdown of the equipment/system.
- (e) Technical Documentation: All necessary changes in the documentation (Technical and Operators manual) for changes carried out on hardware and software of the equipment will be provided.

- (f) During the AMC period, the Seller shall carry out all necessary servicing/repairs to the equipments under AMC at the current location of the equipment/system. Prior permission of the Client shall be required in case certain components/equipments are to be shifted out of location. On such occasions, before taking over the goods or equipments, the Seller shall give suitable bank guarantee to the Client to cover the estimated current value of item being taken.
- (g) The Client reserves its right to terminate the Annual Maintenance Contract (AMC) at any time without assigning any reason after giving a notice of 3 (three) months. The Seller shall not be entitled to claim any compensation against such termination. However, while terminating the Work Order contract, if any payment is due to the Seller for maintenance services already performed in terms of the Work Order, the same would be paid to it as per the terms and conditions of the Work Order.

4.10 Details of Make and Model: Make, model and version (Latest) will be specified for all items in the Technical Bid and Financial Bid. If these details are not given in both the Bids, the bids shall be invalid. Complete technical specifications and literature for hardware and software shall be attached with the Technical Bid

4.11 Rejection of Incomplete Bids: An offer received incomplete or ambiguous is likely to be rejected at the discretion of the client without recourse to further clarifications. Client also reserves the right to seek clarifications with one or more Bidders if considered necessary and also not accept any Bid at all in case they are not reasonably priced.

4.12 Acceptance testing: The details of the procedure for testing shall be worked out jointly by the Seller and the Client, and will be incorporated in Work Order. An Accepting Testing Procedure Board (ATP) will be detailed by client. Client shall issue an acceptance certificate on completion of acceptance testing. The date of issuing the acceptance certificate shall be deemed to be the date on which the Warranty shall commence for the entire set of equipment. In case the items ordered on receipt are not found to be conforming to the laid down specification, the defective items shall be removed and replaced by the items of the correct specification by the Seller at its own expense within a period of 7 (seven) days from the date of acceptance testing.

4.13 Packing and Marking.

- (a) Unless specified otherwise, the equipments shall be secured and properly packed and every precaution taken to avoid loss or damage during transit. Each package shall be clearly marked to indicate description and quantity of equipments/ items, name and address of the Client (where to be delivered), gross weight of the package, Work Order number and date and the name of the Seller.
- (b) All packing cases, containers for packing and other similar materials supplied by the Seller shall not be returned unless otherwise specifically agreed upon.

5. **EVALUATION CRITERIA & PRICE BID ISSUES**

5.1 Eligibility Criteria: Any legal entity such as individual, registered partnership firm or company (under Indian Company Act, 1956).

- (a) Technical Capability: the bidder should have completed 2 (two) works of similar nature each costing more than 15 lakhs.

Here similar nature means:

Successful supply, installation and commissioning of Integrated Audi-visual system for a conference hall with a seating capacity of **more than 25(twenty five)**.

“AND”

- (b) Should have Average Annual turnover of **Rs. 50 (fifty)** Lakhs during last three years, ending as on 31st March 2010.

6. **SUBMISSION OF PROPOSAL**

6.1 **Technical Proposal**

The technical proposal and its evaluation will be based on the Eligibility criteria as mentioned above and due regard to the quantum of similar work undertaken in the past. Bidder qualifying through eligibility criteria will be evaluated in terms of Technical Proposal, submitted alongwith supporting documents, evidencing the said eligibility criteria (e.g. Completion certificates from client(s), and audited annual balance sheets etc.). The financial Proposal of the Consultant qualifying in Technical Proposal Evaluation shall be considered and opened.

6.2 **Financial Proposal**

The Financial Proposal shall be submitted as per **Appendix-F** of this tender Document.

The Lump sum amount shall comprise of two components, as below:-

- A) Quote for installation of Audio-visual System as per Client's Requirements as detailed in Appendix-B
- B) Lump sum quote for Annual Maintenance Contract (AMC) for 5 (five) years.

This amounts for both 'A' and 'B' components above, shall be **inclusive of all taxes including service tax, duties, fees, levies and other charges imposed under the applicable law**. The Bidders shall submit the financial proposal unconditionally. The Financial Proposal shall be submitted in the form appended herewith vide **Appendix-F**.

6.3 **Submission**

The proposal shall be submitted in two parts in two separate envelopes/packages and put together in one single outer envelope/package scribed **“Tender for Installation of Audio Visual System in PIDB Conference Hall”**. The two parts

shall include: Part-A: Technical Proposal and Part-B: Financial Proposal. The EMD shall be enclosed in a separate envelop to be included with technical Proposal and Marked as “**EMD for Installation of Audio Visual System in PIDB Conference Hall**”. The proposal shall be valid for 90 (ninety) days from the last date of receipt of bids as indicated above. The Bidder must submit one original proposal only. The Client shall have the option to seek further validity of offer by another 30 (Thirty) days.

- 6.4 The envelope/s shall clearly mention the ‘Technical Proposal’ and ‘Financial Proposal’ of the Project.
- 6.5 The original proposal shall be prepared in indelible ink. It shall contain no interlineations or overwriting, except as necessary to correct errors made by the applicant itself. Any such corrections must be initiated by the person or persons who sign(s) the Proposals.
- 6.6 An authorized representative of the firm shall initial all pages of the Proposal. The representative’s authorization in original/notarized should be confirmed by a New Power of Attorney accompanying the Proposal.
- 6.7 Completed proposal must be delivered on or before **10th September 2010** on the following address:

*Chief General Manager
PIDB
SCO-33-35, Sector 34-A
Chandigarh
Ph: 0172-2665417*

- 6.8 **Evaluation Criteria:** The broad guidelines for evaluation of Bids shall be as follows:
 - (c) Only those Bids shall be evaluated, which are found to be fulfilling all the eligibility Criteria and qualifying requirements of the Tender, both technically and financially as per clause 5.1.
 - (d) The Technical Bids forwarded by the Bidders shall be evaluated by the Client with reference to the technical specifications/characteristics of the equipments/items as mentioned in the Tender. The compliance of Technical Bids shall be determined on the basis of the parameters specified in the Tender. The Financial Bids of only those Bidders shall be opened whose Technical Bids are cleared during the technical evaluation.
 - (c) For the purpose of financial Evaluation, both the components A & B stated in Clause 6.2 above shall be added. The Bidder quoted lowest of the sum (A+B) shall be declared as a Successful Bidder and invited for the execution of work. The financial bid shall be submitted as per the Financial Bid Format given at **Appendix-F** to this Tender Document. The Financial Bid shall be inclusive of all applicable taxes and duties. The ultimate cost to the Client shall be the deciding factor for the ranking of the Bids.
 - (d) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy

between words and figures, the amount in words will prevail for calculation of price.

- (e) The lowest acceptable Financial Bid shall be considered further for placement of Work Order after complete clarification and price negotiations, as decided by the Client.

6.9 Financial Bids shall be required to be filled up correctly as per format attached as **Appendix-F**

6.10 All alterations shall be duly authenticated with necessary signatures.

6.11 Financial Bids shall be in Indian Rupees.

6.12 All pages of Financial Bids shall be authenticated by affixing company's stamp and signature of the authorised signatory.

Appendix-A**FUNCTIONAL REQUIREMENTS INCLUDING
DETAILS OF ITEMS AND LAYOUT**

1. It is proposed to install a modern Audio Visual System in PIDB conference hall with Adequate IT infrastructure so as to enable it act as a viable force multiplier.
2. The proposed system encompasses items (refer **Appendix-B**) detailed in the succeeding paragraphs. All equipments to be installed in the PIDB conference hall shall adhere to the minimum specifications as detailed in the **Appendix-E**.
3. **The Bidder/Supplier shall also make provisions of at least 2 point for attachment of Laptops and other computer devices for visual display etc.**
4. **Display System:**
 - (a) **Minimum 54" LCD display unit** for large electronic display of an image or images being displayed in a presentation format.
 - (b) Wall Mount Kit for LCD display
 - (c) Cable cubby (1 VGA + Audio & 1 Power Socket)
 - (d) 15-pin HD Male to Male VGA Molded Connectors with Audio Cable
5. **Audio System:** There should be high quality microphones integrated into the system. It should be a mix of microphones mounted on the desk and ceiling mounted speakers of the best makes integrated with a conference controller along with multiple Inputs Single Zone Mixer-Amplifier and jacks. The microphones shall be table embedded.
6. **Conference Controller:**
The minimum basic specification for controller shall be as per the specifications detailed in **Appendix-E**
7. Schematic diagram of Conference hall is shown at **Appendix-C**. Layout of display equipments is shown at **Appendix-D**.
8. **Training of user:** Officers of PIDB will be required to be trained on handling of the complete setup. Selected IT personnel's of PIDB will be required to be trained on basic manning, operations and maintenance of the AV system.
9. **Outputs Desired from the System:** The entire system should provide a fully integrated dynamic platform for operational planning and quick decision making by senior level officers and their staff officers using modern technology systems. The interaction with the system will be through the Touch Panels programmed for the same.

Appendix-B**DETAILS OF ITEMS FOR INSTALLATION OF AUDIO VISUAL SYSTEM IN PIDB CONFERENCE HALL****Summary of Items:**

Sl. No.	Description	Make	Qty
Video System:			
1	LCD Display 54" (Minimum Size) Diagonal Viewing Image, 1920 X 1080 Resolution, 2000: 1 Contrast ratio	Samsung/Panasonic/Sony	1
2	Wall Mount Kit for LCD display	HCL	1
3	Cable cubby (1 VGA + Audio & 1 Power Socket)	Extron	2
4	15-pin HD Male to Male VGA Molded Connectors with Audio Cable	Extron	2
Video Conference System			
Audio System			
1	Low Profile Boundary Microphone	Creator/AKG/Shure/Bosch	17
2	Handheld Wireless Microphone System	Creator/AKG/Shure/Bosch	4
3	Push Button Switch for Microphone	Creator/AKG/Shure/Bosch	17
4	Professional Conferencing Systems	Clearone/equivalent make	1
5	Professional Conferencing Systems	Clearone	2
6	Ceiling Speakers	JBL/Bose	6
Control System			
Installation & Commissioning			
1	12 U AV Rack	Customized	1
2	Bulk Cables & Connectors	Customized	1
3	Installation & Termination	Customized	1

Appendix-C

Schematic Diagram and Layout Plan of the PIDB Conference Hall

Appendix-D

Indicative Layout of Display Items/Equipment

Appendix-E

TECHNICAL SPECIFICATIONS OF ITEMS

Following minimum specification shall be complied with

1. **Video Display System**

A) **LCD Display System**

panel	Diagonal Size (Minimum)		54"
	Type		S-PVA(DID)
	Resolution		WXGA 1920x1080 (16:9)
	Pixel Pitch(mm)		0.807(H) x 0.807(V)
	Active Display Area(mm)		1549.44(H) x 871.56(V)
	Brightness(Typ.)		600cd/m2
	Contrast Ratio		2000:1
	Viewing Angle(H/V)		178/178
	Response Time(G-to-G)		8ms
	Display Colors		8 bit - 16.7M
	Color Gamut		72%
Display	Dynamic C/R		2500:1
	H-Scanning Frequency		30kHz ~ 81kHz
	V-Scanning Frequency		56Hz ~ 85Hz
	Maximum Pixel Frequency		148.5MHz
Connectivity	INPUT	RGB	Analog D-SUB, DVI-D
		VIDEO	CVBS, Component, BNC, HDMI
		AUDIO	RCA(L/R) , Stereo mini Jack
	OUTPUT	RGB	DVI-D(Loop-out)
		VIDEO	BNC
		AUDIO	Stereo mini Jack
		Power Out	N/A
	EXTERNAL CONTROL		RS232C(in/out)
EXTERNAL SENSOR		N/A	
Power	Type		Internal
	Power Supply		AC 100 - 240 V~ (+/- 10 %), 50/60 Hz
	Power Consumption	On mode	720W(Max) / 680W(Typ)
		Sleep mode	less than 2W
		Off mode	less than 1W
Mechanical Spec	Dimension (mm)	Set	1668 x 989 x 138
		Package	1825 x 1353 x 610
	Weight (kg)	Set	81.7
		Package	102.7
	VESA Mount		800 X 400 mm
	Protection Glass		Optional
	Stand Type		N/A
Media Player Option Type		N/A	
Operation	Operating Temperature		0°C~ 40°C
	Humidity		10~80%

B) Heavy Duty Wall Mount Kit for the LCD**C) Cable Cubby**

- Furniture Mountable
- Enclosure type should be of Metal
- Ports_1 X VGA,1 x Audio,1 x Power socket
- Dimensions
 - i. Top plate (outer rim) : 5.130" W x 6.470" D (13.0 cm W x 16.4 cm D)
 - ii. Surface cutout (inside rim) : 4.625 ±0.0325" W x 5.970 ±0.0325" D (11.75 ±0.083 cm W x 15.16 ±0.083 cm D)
 - iii. Box (under surface) :6.410" H x 4.320" W (front/rear of unit) x 4.750" D without clamps
(16.28 cm H x 10.97 cm W x 12.07 cm D without clamps)
6.410" H x 6.57" W x 4.750" D with clamps
(16.28 cm H x 16.68 cm W x 12.07 cm D with clamps)

D) 15-pin HD Male to Male VGA Moulded Connectors with Audio Cable**2. AUDIO SYSTEM****A) Audio Performance**

- Conditions: Unless otherwise specified, all measurements are performed with a 20 Hz to 22 kHz BW limit (no weighting)
- Frequency Response: 20 Hz to 22 kHz ±1dB
- Noise (EIN): -126 dBu, 22 kHz BW, max gain, Rs=150 Ω
- THD+N: <0.02%
- Dynamic Range: 100 dB (non Aweighted)
- Crosstalk <-91 dB re 20 dBu @ 20 kHz channel to channel

B) Conference Controller

- Power Supply : AC 100-240 V 50-60 Hz
- Max Power : 350 W
- SNR : (S/N)> 80dB
- Frequency Response : 60-16 KHz
- Distortion : < 1%

C) 10 Meter Installing Cable-8 Aerial male jack to 8 Aerial Female Jack**D) 2 Meter Installing Cable-8 Aerial male jack to 8 Aerial Female Jack****E) 4 Inputs Single Zone Mixer-Amplifier**

1. Minimum guaranteed power into 4 ohms or 70V/100V output
2. Frequency Response (at 1 watt from 4-ohm tap): 70 Hz to 19 kHz ± 1 dB.
3. Frequency Response (at line out): 20 Hz to 20 kHz ± 1 dB.
4. Power Bandwidth (at 4-ohm tap, 2 dB below maximum 1 kHz power): 50 Hz to 20 kHz with< 0.5% THD
5. Signal to Noise Ratio (ref. to rated power, master volume at minimum): 85 dB.
6. DC Output Offset: < ±5 mV.

7. THD: Less than 0.5% at rated power at 1 kHz.
8. Input Sensitivity (for full output at maximum gain):
 - a. Balanced mic inputs: 3 mV.
 - b. Balanced line inputs: 800 mV.
 - c. RCA connectors: 400 mV.
9. Input Impedance (nominal):
 - a. Mic: 400 ohms.
 - b. Line: 100 kilohms.
 - c. RCA: 50 kilohms.
10. Crosstalk: -70dB at 1kHz.
11. Line Output Level (nominal): 1V into 10 kilohms.
12. Phantom Power: 15 VDC.
13. AC Line Voltages Available:
 - a. 100V 50/60 Hz
 - b. 120V 60 Hz
 - c. 220V 50/60 Hz
 - d. 230V 50/60 Hz
 - e. 240V 50/60 Hz
14. **Operating Temperature/Humidity:** 0° C to 40° C at 95% relative humidity (non-condensing).
15. **Storage Temperature:** -20° C to 85° C.
16. Front Panel Controls and Indicators
17. **Power Switch:** Pushbutton on-off switch. The power switch does not affect the 24V DC auxiliary power input.
18. **Input Volume Controls:** Microphone/line, four in 180MA and 1160MA, eight in 280MA. Detented potentiometers with knobs.
19. **Tone Controls:** Bass and Treble non-detented recessed potentiometers on each input channel. Bass ± 10 dB at 100 Hz, Treble ± 10 dB at 10 kHz.
20. **Power Indicator:** Blue LED indicates power on.
21. **Input Signal Presence Indicator:** Green LED, one for each input channel, illuminates when input signal exceeds -24 dBu (line) or -70 dBu (mic).
22. **Output Signal Presence Indicator:** Green LED, one for each output channel, illuminates when output signal level exceeds 100 mV (45 dB below full power) from the 4-ohm tap. Does not respond to signals from the AMP INPUT connector.

F) Speakers

System:

- a. Frequency Range¹: 85 Hz - 25 kHz
- b. Power Capacity²: 30 Watts Continuous Program Power (C24C Micro), 15 Watts Continuous Pink Noise (C24C Micro)
- c. Nominal Sensitivity³: 86 dB SPL @ 1 m (3.3 ft)
- d. Crossover Frequency: 3.5 kHz
- e. Rated Maximum SPL: 98 dB @ 1 m (3.3 ft), 94 dB @ 1 m (3.3 ft), 8W tap
- f. Transformer Taps (24CT Micro): 70V: 8W, 4W, 2W, 1W & 0.5 W taps
- g. 100V: 8W, 4W, 2W, 1W taps

Transducers:

- a. Low Frequency: 115 mm (4.5 in) IMG (injection moulded graphite), 24 mm (1 in), voicecoil
- b. High-Frequency: 12 mm (0.5 in) polycarbonate

Physical:

- a. **Backcan:** Formed steel
- b. **Baffle/Rim:** Medium impact polystyrene, fire rated UL94V-0,Secondary Attachment Point: Included
- c. **Termination:** Screw-down terminals, touch-proof, UL, CE and VDE rated, outside of backcan
- d. **Safety Agency Rating:** In accordance with IEC60849 / EN60849. Suitable for use in air handling spaces, per U.L.-2043, U.L.-1480, NFPA90, NFPA70A.
- e. **Outside Dimensions (H x Dia):** 106 x 195 mm (4.2 x 7.7 in) 105 mm (4.1 in) front of ceiling tile to back of the backcan
- f. **Cutout Size:** 167 mm (6.6 in)
- g. **Included Accessories:** C-shaped support backing plate,2 tile support rails (fits both 2 ft and 600 mm tiles), Cutout template, cardboard

Appendix-F
FORMAT OF FINANCIAL BID

To

**SUB: FINANCIAL BID FOR INSTALLATION OF AUDIO-VISUAL SYSTEM IN PIDB
CONFERENCE HALL**

Dear Sir,

Reference to your Tender No _____ dated _____.

We hereby submit our quotation for a total of Rs _____ (A+B), with following breakup of two components as per Tender Document issued by Client is as under:-

- A) Our Quote for Installation of Audio Visual System in PIDB Conference Hall is for amount Rs. _____ . (inclusive of all taxes, etc.)

Sr. No.	Name of Items	Qty	Cost per Unit (In Rs)	Total Cost	Make/ Model
(a)	<u>Basic Cost of Items</u>				
1.	LCD Display 54" (Minimum Size) Diagonal Viewing Image, 1920 X 1080 Resolution, 2000: 1 Contrast ratio	1			Samsung/ Panasonic/ Sony
2.	Wall Mount Kit for LCD display	1			HCL
3.	Cable cubby (1 VGA + Audio & 1 Power Socket)	2			Extron
4.	15-pin HD Male to Male VGA Molded Connectors with Audio Cable	2			Extron
	<u>Video Conference System</u>				
	<u>Audio System</u>				
1.	Low Profile Boundary Microphone	17			Creator/ AKG/ Shure/ Bosch
2.	Handheld Wireless Microphone System	4			Creator/ AKG/ Shure/ Bosch
3.	Push Button Switch for Microphone	17			Creator/ AKG/ Shure/ Bosch
4.	Professional Conferencing Systems	1			Clearone

5.	Professional Conferencing Systems	2			Clearone
6.	Ceiling Speakers	6			JBL/Bose
	Control System				
	Installation & Commissioning				
1.	12 U AV Rack	1			Customized
2.	Bulk Cables & Connectors	1			Customized
3.	Installation & Termination	1			Customized
	Total of Basic Price				

B) Our Annual Maintenance Contract (AMC) quotation for 5 (five years) is for Rs. _____ . (Inclusive of all taxes, etc.).

Validity: The prices are valid upto _____ (fill date) (min 90 (ninety) days from opening of the tenders).

Company Seal:

(Authorised Signatory)

Place :

Date :