

# **NOIDA METRO RAIL CORPORATION (NMRC) LIMITED**

**REQUEST FOR PROPOSAL (RFP)**

**E tender No. NMRC/AV/01/2019**

**RFP for Implementation of Audio-Video System at NMRC Auditorium and Meeting Room.**

**July 2019**

**Issued by:**

**Noida Metro Rail Corporation (NMRC) Limited  
Block-III, 3<sup>rd</sup> Floor,  
Ganga Shopping Complex,  
District Gautam Budh Nagar,  
Sector-29, Noida (201301)  
Uttar Pradesh, India**

## **Disclaimer**

This Request for Proposal (RFP) Document (or “E-Tender” or “E-Bid”) for “Implementation of Audio Video System at NMRC Auditorium and Meeting room” contains brief information about the scope of work and selection process for the Bidder (“the Contractor” or “the Tenderer”). The purpose of the Document is to provide the Bidders with information to assist the formulation of their Bidding Documents.

While all efforts have been made to ensure the accuracy of information contained in this RFP Document, this Document does not purport to contain all the information required by the Bidders. The Bidders should conduct their own independent assessment, investigations and analysis and should check the reliability, accuracy and completeness of the information at their end and obtain independent advice from relevant sources as required before submission of their Bid/s. Noida Metro Rail Corporation Ltd. (“NMRC” or “the Corporation”) or any of its employees or advisors shall incur no liability under any law, statute, rules or regulations as to the accuracy or completeness of the RFP Document.

NMRC reserves the right to change any or all conditions/information set in this RFP Document by way of revision, deletion, updating or annulment through issuance of appropriate addendum as NMRC may deem fit without assigning any reason thereof.

NMRC reserves the right to accept or reject any or all Bids without giving any reasons thereof. NMRC will not entertain or be liable for any claim for costs and expenses in relation to the preparation of the Bid/s to be submitted in terms of this RFP Document.

## Glossary

- a) **"Addendum / Amendment"** means any written amendment / addendum / corrigendum to this RFP, from time to time issued by NMRC to the prospective bidders.
- b) **"Agreement"** means the Contract Agreement to be executed between NMRC and the Selected Bidder.
- c) **"Applicable Laws"** means all the laws including local, state, national or other laws, brought into force and effect by Govt. of India, State Governments, local bodies, statutory agencies and any other, and rules / regulations / notifications issued by them from time to time. It also include judgments, decrees, injunctions, writs and orders of any court or judicial authority as may be in force and effected from time to time.
- d) **"Bidder" or "Tenderer"** means any entity which is a sole proprietorship firm, a partnership firm or a company, in title and assigns which is submitting its bid pursuant to RFP Documents.
- e) **"Bid Due Date"** means Bid Submission end date and time given in the E-tender.
- f) **"Consignee"** means where the equipment are required by the acceptance of the tender to be dispatched by rail, road, air or streamer, the person specified in the Acceptance of tender to whom they are to be delivered at the destination.
- g) **"Drawing"** means the drawing or drawings specified in or annexed to the specification.
- h) **"e-Bid Security / Earnest Money Deposit (EMD)"** means the refundable amount to be submitted by the Bidder along with RFP documents to NMRC.
- i) **"Equipment"** means the goods in the contract, which the Contractor has agreed to supply under the Contract.
- j) **"Facilities"** means the Equipment to be supplied and installed as well as all the Installation Services to be carried out by the Contractor under the Contract.
- k) **"Inspecting Officer"** means the person/team of NMRC specified in the contract for the purpose of inspection of equipment and includes his/their authorized representatives.
- l) **"Performance Bank Guarantee/ Security Deposit"** means interest free amount to be deposited by the Contractor with NMRC as per terms and conditions of Contract Agreement as a security against the performance of the Contract agreement.
- m) **"NMRC"** means Noida Metro Rail Corporation Limited (or "Corporation" or "Purchaser" or "Employer").
- n) **"Party"** means Contractor or Corporation (together they are called **"Parties"**).
- o) **"Permits"** shall mean and include all applicable statutory, environmental or regulatory Contracts, authorization, permits, consents, approvals, registrations and franchises from concerned authorities
- p) **"Purchase Officer"** means the officer signing the acceptance of tender and includes any officer who has authority to execute the relevant contract on behalf of the Purchaser.
- q) **"Re. or Rs. or INR"** means Indian Rupee.

- r) **“Revenue Operations Date (ROD)”** means the date of operation of Metro.
- s) **“Selected Bidder”** means the bidder who has been selected by NMRC, pursuant to the bidding process for award of Contract.
- t) **“Site”** means the Auditorium at NMRC Depot, Greater Noida and NMRC Conference Room at sector 29, Noida as specified in the NOA at which equipment is required to be delivered /installed by the Contractor under the contract or any other place approved by the Purchaser for the purpose in Noida/Greater Noida.
- u) **“Test”** means such test as is prescribed by the particulars or considered necessary by the NMRC whether performed or made by the Inspecting Officer or any agency acting under the direction of the Inspecting Officer.
- v) **“Work”** means all the work specified or set forth and required in and by the said specifications, drawings and "Schedule of Requirements", hereto annexed or to be implied there from or incidental thereto, or to be hereafter specified or required in such explanatory instructions and drawings (being in conformity with the said original specifications, drawings and "Schedule of Requirements"). The words and expressions beginning with capital letters and defined in this document shall, unless repugnant to the context, have the meaning ascribed thereto hereinabove.

## Data Sheet

1	Name of Bid	RFP for Implementation of Audio-Video System at NMRC Auditorium and Meeting room.
2	Time period of Contract	Comprehensive Annual Maintenance Contract (CAMC) for 3 years after expiry of DLP (Defect Liability Period) of 1 year. Extension of CAMC may be provided.
3	Method of Selection	Cost Based Selection Lowest – L1
4	Bid Processing Fee	Rs 23,600/- (Rs. Twenty Three Thousand and Six Hundred only) through NEFT only payable in favour of Noida Metro Rail Corporation Ltd (inclusive of GST).
5	Earnest Money Deposit (EMD)	Rs. 8,85,498/- (Rs. Eight Lakhs Eighty Five Thousand Four Hundred and Ninety Eight only)
6	Bid System	Two Bid System ( Technical and Financial)
7	Name of the Corporation and Official	Executive Director Noida Metro Rail Corporation Block – III, 3 <sup>rd</sup> Floor, Ganga Shopping Complex Sector 29, Noida – 201301 Email: <a href="mailto:nmrcnoida@gmail.com">nmrcnoida@gmail.com</a> Website: <a href="http://www.nmrcnoida.com">www.nmrcnoida.com</a> <a href="https://etender.up.nic.in">https://etender.up.nic.in</a>
8	Bid Validity	180 Days
9	Bid Language	English
10	Bid Currency	INR
11	Key Dates	Schedule
(a)	Uploading of Bid	17.07.2019
(b)	Pre Bid Meeting	26.07.2019
(c)	Last Date of Bid Submission	16.08.2019
(d)	Date of Technical Bid Opening	19.08.2019
	Consortium to be allowed	No
	Sub-contracting is allowed	No
	Account details	<b>(a): For Bid processing fee &amp; EMD</b> State Bank of India (SME Branch) – Sector 18, Noida, Gautam Budh Nagar, UP – 201301 IFSC Code: SBIN0004077 <b>A/c No. 37707840592 (Current Account)</b> <b>Noida Metro Rail Corporation Ltd.</b>

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## **1. General Information**

### **1.1. Background**

- a. Noida Metro Rail Corporation is a Special Purpose Vehicle (SPV) formed by Noida and Greater Noida Authorities for planning and executing urban transport projects in Noida, Greater Noida regions. The Corporation provides a world-class Public Transportation System with state-of-the-art technology.
- b. An elevated metro line between Noida and Greater Noida is already Operational.
- c. NMRC invites e-Bids for selection of Contractor for Implementation of Audio Video System at NMRC Auditorium and Meeting room.
- d. In this regard, the Corporation now invites the interested Bidder/s to submit their proposals as per provisions of this RFP Document.
- e. NMRC will shortlist the Bidders on the basis of evaluation criteria mentioned in this RFP Document. On the basis of the minimum evaluation criteria, qualified Bidders will be shortlisted and financial proposal of only qualified Bidders will be opened.

### **1.2. About Locations**

The metro corridor is 29.7 km long in first phase and is known as Noida Greater Noida Metro Rail Corridor. It comprises 21 metro stations starting from Noida Sector 51 in Noida and ends up at Depot Station in Greater Noida.

### **1.3. Communication**

All communications should be addressed to -

#### **Executive Director**

Noida Metro Rail Corporation (NMRC) Limited  
Block-III, 3<sup>rd</sup> Floor, Ganga Shopping Complex,  
District Gautam Budh Nagar, Sector-29,  
Noida -201301  
Uttar Pradesh, India

## **2. Terms of Reference**

### **2.1. Scope of Work**

- a. The work covered in the tender includes Implementation of Audio-Video System at NMRC Auditorium and Meeting room - Comprehensive Annual Maintenance Contract (CAMC) for 3 (Three) years after expiry of DLP (Defect Liability Period) of 1 (One) Year from the date of commissioning. However, an extension can be given for CAMC on the conditions as decided by NMRC.
- b. The list of equipment required as per the tender is set forth in
- c. Technical Specifications are provided in Section 07 of this RFP.

## **3. Instructions to Bidders**

### **3.1. General instructions**

- a. A Bidder is eligible to submit only one Tender for the Project. A Bidder applying shall not be entitled to submit another Tender, as the case may be. Any Bidder, which submits or participates in more than one tender/proposal would be disqualified.
- b. The Bidder shall initiate, and actively pursue and involve itself in all investigations and enquiries, Corporation feedbacks, information, convening of and attendance at meetings, and in any other activities as are or may be necessary for producing high quality work as per the requirements.
- c. The Bidder shall carry out the services in compliance with the provisions of this Agreement. Any and all changes necessary to ensure that the Bidder's documents conform to the intent and purpose set out in the Agreement, shall be made at the Bidder's own expense. The Bidder represents that it is a professional and experienced company providing services related to Implementation of Audio Video System at NMRC Auditorium and Meeting room, and hereby agrees to bear full responsibility for the correctness and technical merit of the services performed.
- d. Bidders shall be evaluated on the basis of the Evaluation Criteria specified in this document. Bidders shall be deemed to have understood and agreed that no explanation or justification for any aspect of the Selection Process will be given and that NMRC's decisions are without any right of appeal whatsoever.
- e. Any entity which has been barred by the Central/State Government in India or by any entity controlled by them, from participating in any project, and the bar subsists as on the date of Bid, would not be eligible to submit an e - Bid.

- f. An Bidder should have, during the last five years, neither failed to perform on any agreement, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Bidder, nor been expelled from any project or agreement nor have had any agreement terminated for breach by such Bidder.
- g. Bidders are encouraged to inform themselves fully about the assignment and the local conditions before submitting the e-Bid by paying a visit to the Corporation and/or by sending written queries to NMRC before the last date for receiving queries/clarifications.
- h. NMRC shall not be liable for any omission, mistake or error on the part of the Bidder in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to e-Bid or the Selection Process, including any error or mistake therein or in any information or data given by NMRC.
- i. Any new taxes or any statutory variation [which comes into effect after the last date of submission of Bid on any item] during the contractual completion shall be to the Employer's account for which the Bidder shall furnish the documentary evidence in support of their claims. However, any increase in cost due to new taxes or change in existing taxes introduced during extended contractual period due to Bidder's fault shall be to his account.
- j. The currency for the purpose of the Proposal shall be the Indian Rupee (INR) only.

#### **Cost of Bid Document / e-Tender processing Fee**

- a. The tenderer shall bear all costs associated with the preparation and submission of its e-Bid and Noida Metro Rail Corporation Ltd. ("NMRC" or "the Corporation"), will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the e-Bid process.
- b. This tender document is available on the web site <http://etender.up.nic.in> or on NMRC website ([www.nmrcnoida.com](http://www.nmrcnoida.com)) to enable the tenderers to view, download the e-Bid document and submit e-Bids online up to the last date and time mentioned in e-Tender notice/e-tender document against this e-Tender. The tenderers shall have to pay cost of bid document/ e-Tender processing fee of as mentioned in **Data Sheet** through NEFT only payable in favour of Noida Metro Rail Corporation Limited in the A/c No. mentioned in **Data Sheet**. The scanned copy of NEFT receipt with transaction Id certified by the same bank must be enclosed along with the e-Bid. This cost of bid document/ e-Tender processing fee as mentioned in **Data Sheet** will be non-refundable. Tender

without cost of bid document/ e-Tender processing fee in the prescribed form, will not be accepted.

### 3.1.1. Acknowledgement by Bidder

It shall be deemed that by submitting the e-Bid, the Bidder has:

- a. made a complete and careful examination of the e-Bid;
- b. received all relevant information requested from NMRC;
- c. acknowledged and accepted the risk of inadequacy, error or mistake in the information provided in the e-Bid or furnished by or on behalf of NMRC;
- d. satisfied itself about all matters, things and information, necessary and required for submitting an informed Application and performance of all of its obligations thereunder;
- e. acknowledged that it does not have a Conflict of Interest; and
- f. agreed to be bound by the undertaking provided by it under and in terms hereof.

### 3.1.2. Availability of Bid Document

This Bid document is available on the website <http://etender.up.nic.in> and on Noida Metro website [www.nmrcnoida.com](http://www.nmrcnoida.com) to enable the Bidders to view, download the e-Bid document and submit e-Bids online up to the last date and time mentioned in e-Bidder notice/ e-Bid document. The Bidder's shall have to pay e-Bid document fee and EMD as mentioned in Data sheet through NEFT on address given in data sheet. The scanned copy of NEFT with transaction ID certified by the same bank must be enclosed along with the e-Bid. This e-Bid document fee will be non-refundable. Bid without Bid fee in the prescribe form will not be accepted.

### 3.1.3. Clarifications of e-Bid

- a. During evaluation of e-Bid, NMRC may, at its discretion, ask the Bidder for a clarification of his/her e-Bid. The request for clarification shall be in writing.
- b. Any queries or request for additional information concerning this RFP shall be submitted in writing or by fax and e-mail to the Executive Director, NMRC **only during Pre-Bid Meeting** held at NMRC. The envelopes/ communication shall clearly bear the following identification/ title: **"Queries/ Request for Additional Information: RFP for Implementation of Audio-Video System at NMRC Auditorium and Meeting Room "**. The responses will be posted to all such queries on the official Website [www.nmrcnoida.com](http://www.nmrcnoida.com). NMRC reserves the right not to respond to any questions or provide any clarifications, in its sole discretion, and nothing in this Clause shall be taken or read as compelling or requiring NMRC to respond to any question or to provide any clarification.

- c. A pre-bid meeting shall be called on at NMRC Office. Any change corresponding to date, if any, shall be communicated to the Bidder vide NMRC/ e-Tendering website.
- d. In case the Bidder seeks for any queries, he shall send letter or e-mail to the correspondence address given in Data Sheet
- e. However, NMRC shall not entertain any correspondence from the Bidders during the period of e-Bid opening to selection of the successful Bidder. Any wrong practice shall be dealt in accordance with the Section 5.13 of this e-Bid document under Fraud and Corrupt Practices.

#### **3.1.4. Amendment of e-Bid Document**

- a. At any time prior to the deadline for submission of e-Bid, NMRC may, for any reason, whether at it's on in iterative or in response to a clarification requested by a prospective Bidder, modify the e-Bid document by amendments. Such amendments shall be uploaded on the e-procurement website <http://etender.up.nic.in>. The relevant clauses of the e-Bid document shall be treated as amended accordingly.
- b. It shall be the sole responsibility of the prospective Bidder to check the website <http://etender.up.nic.in> or NMRC's website [www.nmrcnoida.com](http://www.nmrcnoida.com) from time to time for any amendment in the e-Bid documents. In case of failure to get the amendments, if any, NMRC shall not be responsible for it.
- c. In order to allow prospective e-Bids a reasonable time to take the amendment into account in preparing their e-Bids, NMRC, at the discretion, may extend the deadline for the submission of e-Bids. Such extensions shall be uploaded on the e-procurement website <http://etender.up.nic.in>, or NMRC's website [www.nmrcnoida.com](http://www.nmrcnoida.com).

### **3.2. Preparation and submission of Bids**

#### **3.2.1. Language of e-Bid**

The e-Bid prepared by the Bidder, as well as all correspondence and documents relating to the e-Bid exchanged by the Bidder and NMRC shall be written in English language. Only English numerals shall be used in the e-Bid. The correspondence and documents in any other language must be accompanied by transcripts verified by the Embassy of Home Country or equivalent.

#### **3.2.2. Documents constituting the e-Bid**

**The e-Bid prepared by the Bidder shall comprise the following components:**

- a. Technical e-Bid-**

**Technical e-Bid will comprise of -**

- i. **Fee details** - Details of Bid processing fee and prescribed EMD
- ii. **Eligibility details** - Includes copies of required documents in PDF format justifying that the Bidder is qualified to perform the contract if his/her bid is accepted and the Bidder has financial & technical capability necessary to perform the contract and meets the criteria outlined in the Qualification requirement and technical specification and fulfill all the conditions of the contract.
- iii. **Technical evaluation** - Details of all documents needed for Technical evaluation as mentioned in this RFP.

**b. Financial e-Bid -**

- i. **Price bid** – Bill of Quantities in XLS format to be filled in after downloading from the e-Procurement website for this e-tender. There shall be a single quote.

**3.2.3. Documents establishing Bidder's Qualification**

- a. The Bidder shall furnish, as part of its technical e-Bid, documents establishing the Bidder's qualification to perform the contract if its e-Bid is accepted. The documentary evidence should be submitted by the Bidder electronically in the PDF format.
- b. The documentary evidence of Bidder's qualification to perform the contract if its e-Bid is accepted shall be as per qualification requirements specified in e-Bid document.

**3.2.4. E-Bid form**

The Bidder shall complete the e-Bid form and the appropriate price schedule/BOQ furnished in the e-Bid document. Financial Quote shall comprise of the rate of Total Price for Implementation of Audio-Video Equipment on DDP (Delivered Duty Paid) basis with CAMC of 3 years in the Bid form in figures and words.

**3.2.5. E-Bid Currency**

Prices shall be quoted in Indian Rupees only.

**3.2.6. Formats and Signing of e-Bid**

- a. The Bidder shall prepare one electronic copy of the technical e-Bid and financial e-Bid separately.
- b. The e-Bid document shall be digitally signed, at the time of uploading, by the Bidder or a person or persons duly authorized to bind the Bidder to the contract. The later authorization shall be indicated by a scanned copy of written power-of attorney accompanying the e-Bid. All the pages/documents of the e-Bid that are to be uploaded shall be digitally signed by the person authorized to sign the e-Bid.

- c. Bidders should provide all the information as per the RFP and in the specified formats. NMRC reserves the rights to reject any proposal that is not in the specified formats
- d. In case the Bidders intends to provide additional information for which specified space in the given format is not sufficient, it can be furnished in duly stamped and signed PDFs

### **3.2.7. Deadline for submission of e-Bid**

E-Bid (Technical and financial) must be submitted by the Bidder at e-procurement website <http://etender.up.nic.in> not later than the time specified on the prescribed date (as the server time displayed in the e-procurement website). NMRC may, at its discretion, extend this deadline for submission of e-Bid by amending the e-Bid document, in which case all rights and obligations of NMRC and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

### **3.2.8. Submission of e-Bid**

- a. The bid submission module of e-procurement website <http://etender.up.nic.in> enables the Bidders to submit the e-Bid online in response to this e-Bid published by NMRC.
- b. Bid submission can be done only from the bid submission start date and time till the bid submission end date and time given in the e-Bid. Bidders should start the bid submission process well in advance so that they can submit their e-Bid in time.
- c. The Bidder should submit their e-Bid considering the server time displayed in the e-procurement website. This server time is the time by which the e-Bid submission activity will be allowed till the permissible time on the last/end date of submission indicated in the e-Bid schedule.
- d. Once the e-Bid submission date and time is over, the Bidders cannot submit their e-Bid. For delay in submission of e-Bid due to any reasons, the Bidders shall only be held responsible.

### **The Bidders have to follow the following instructions for submission of their e-Bid:**

- a. For participating in e-Bid through the e-Bidding system it is necessary for the Bidders to be the registered users of the e-procurement website <http://etender.up.nic.in>. The Bidders must obtain a user login Id and password by registering themselves with **U.P. Electronics Corporation Ltd., Lucknow** if they have not done so previously for registration.
- b. In addition to the normal registration, the Bidder has to register with his/her digital signature certificate (DSC) in the e-Bidding system and subsequently he/she will be allowed to carry out his/her e-Bid submission activities. Registering the digital signature certificate (DSC) is a one-time activity. Before proceeding to register his/her DSC, the

Bidder should first log on to the e-Bidding system using the user login option on the home page with the login Id and password with which he/she has registered.

For successful registration of DSC on e-procurement website <http://etender.up.nic.in> the Bidder must ensure that he/she should possess class-2/class-3 DSC issued by any certifying authorities approved by controller of certifying authorities, Government of India, as the e-procurement website <http://etender.up.nic.in> is presently accepting DSC issued by these authorities only. The Bidder can obtain user login Id and perform DSC registration exercise given above even before the e-Bid submission date starts. NMRC shall not be held responsible if the Bidder tries to submit his/her e-Bid at the moment before end date of submission but could not submit due to DSC registration problem.

- c. The Bidder can search for active Bids through "search active tenders" link, select a Bid in which he/she is interested in and then move it to 'My Tenders' folder using the options available in the e-Bid submission menu. After selecting and the Bid, for which the Bidder intends to e-Bid, from "My tenders" folder, the Bidder can place his/her e-Bid by clicking "pay offline" option available at the end of the view Bid details form. Before this, the Bidder should download the e-Bid document and price schedule/bill of quantity (BOQ) and study them carefully. The Bidder should keep all the documents ready as per the requirements of e-Bid document in the PDF format except the price schedule /bill of quantity (BOQ) which should be in the XLS format (excel sheet).
- d. After clicking the 'pay offline' option, the Bidder will be redirected to terms and conditions page. The Bidder should read the terms & conditions before proceeding to fill in the Bid fee and EMD offline payment details. After entering and saving the Bid fee and EMD details form so that "bid document preparation and submission" window appears to upload the documents as per technical (fee details, qualification details, e-Bid form and technical specification details) and financial (e-Bid form and price schedule/BOQ) schedules/packets given in the Bid details. The details of the NEFT should tally with the details available in the scanned copy and the date entered during e-Bid submission time otherwise the e-Bid submitted will not be accepted.
- e. Next the Bidder should upload the technical e-Bid documents for fee details (e-Bid fee and EMD), Qualification details. Before uploading, the Bidder has to select the relevant digital signature certificate. He may be prompted to enter the digital signature certificate password, if necessary. For uploading, the Bidder should click "browse" button against each document label in technical and financial schedules/packets and then upload the relevant PDF/XLS files already prepared and stored in the Bidder's computer. The required documents for each document label of technical ( fee details, qualification details, e-Bid form and technical specification details) and financial ( e-Bid



form and price schedule/BOQ) schedules/packets can be clubbed together to make single different files for each label.

- f. The Bidder should click "Encrypt" next for successfully encrypting and uploading of required documents. During the above process, the e-Bid document are digitally signed using the DSC of the Bidder and then the documents are encrypted/locked electronically with the DSC's of the bid openers to ensure that the e-Bid documents are protected, stored and opened by concerned bid openers only.
- g. After successful submission of e-Bid document, a page giving the summary of e-Bid submission will be displayed confirming end of e-Bid submission process. The Bidder can take a printout of the bid summary using the "print" option available in the window as an acknowledgement for future reference.
- h. NMRC reserves the right to cancel any or all e-Bids without assigning any reason.

### **3.2.9. Late e-Bid**

- a. Bids received by NMRC after the specified time on the Bid Due Date shall not be eligible for consideration and shall be summarily rejected.
- b. The server time indicated in the bid management window on the e-procurement website <http://etender.up.nic.in> will be the time by which the e-Bid submission activity will be allowed till the permissible date and time scheduled in the e-Bid.
- c. Once the e-Bid submission date and time is over, the Bidder cannot submit his/her e-Bid. Bidder has to start the bid submission well in advance so that the submission process passes off smoothly. The Bidder will only be held responsible if his/her e-Bid is not submitted in time due to any of his/her problems/faults, for whatsoever reason, during e-Bid submission process.

### **3.2.10. Withdrawal and resubmission of e-Bid**

- a. At any point of time, a Bidder can withdraw his/her e-Bid submitted online before the bid submission end date and time. For withdrawing the Bidder should first log in using his/her login id and password and subsequently by his/her digital signature certificate on the e-procurement website <http://etender.up.nic.in>. The Bidder should then select "My bids" option in the bid submission menu. The page listing all the bids submitted by the Bidder will be displayed. Click "View" to see the details of the bid to be withdrawn. After selecting the "bid withdrawal" option the Bidder has to click "Yes" to the message "Do you want to withdraw this bid?" displayed in the bid information window for the selected bid. The Bidder also has to enter the bid withdrawing reasons and upload the letter giving the reasons for withdrawing before clicking the "Submit" button. The

Bidder has to confirm again by pressing "OK" button before finally withdrawing his/her selected e-Bid.

- b. No e-Bid may be withdrawn in the interval between the deadline for submission of e-Bids and the expiration of period of e-bid validity. Withdrawal of an e-Bid during this interval may result in the forfeiting of Bidder's e-Bid security.
- c. The Bidder can re-submit his/her e-Bid as when required till the e-Bid submission end date and time. The e-Bid submitted earlier will be replaced by the new one. The payment made by the Bidder earlier will be used for revised e-Bid and the new e-Bid submission summary generated after the successful submission of the revised e-Bid will be considered for evaluation purposes. For resubmission, the Bidder should first log in using his/her login Id and password and subsequently by his/her digital signature certificate on the e-procurement website <http://etender.up.nic.in>. The Bidder should then select "My bids" option in the bid submission menu. The page listing all the bids submitted by the Bidder will be displayed. Click "View" to see the detail of the e-Bid to be resubmitted. After selecting the "bid resubmission" option, click "Encrypt & upload" to upload the revised e-Bids documents.
- d. The Bidder can submit their revised e-Bids as many times as possible by uploading their e-Bid documents within the scheduled date & time for submission of e-Bids.
- e. No e-Bid can be resubmitted subsequently after the deadline for submission of e-Bids.

#### **3.2.11. NMRC's right to accept any e-Bid and to reject any or all e-Bids.**

- a. Notwithstanding anything contained in this e-Bid, NMRC reserves the right to accept or reject any Bid and to annul the Selection Process and reject all Bids, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons thereof.
- b. NMRC reserves the right to reject any Bid if:
  - At any time, a material misrepresentation is made or uncovered, or
  - The Bidder does not provide, within the time specified by NMRC, the supplemental information sought by NMRC for evaluation of the e-Bid.
- c. Such misrepresentation/ improper response may lead to the disqualification of the Bidder. If such disqualification /rejection occurs after the e-Bid have been opened and the highest ranking Bidder gets disqualified / rejected, then the NMRC reserves the right to consider the next best Bidder, or take any other measure as may be deemed fit in the sole discretion of NMRC, including annulment of the Selection Process.

#### **3.2.12. Period of validity of e-Bid**

- a. E-Bid shall remain valid for 180 days after the date of e-Bid opening prescribed by NMRC. An e-Bid valid for a shorter period shall be rejected by NMRC as non-responsive.
- b. In exceptional circumstances, NMRC may solicit the Bidder's consent to an extension of the period of e-Bid validity. The request and the response thereto shall be made in writing.

### **3.2.13. Correspondence with the Bidder**

- a. Save and except as provided in this e-Bid, NMRC shall not entertain any correspondence with any Bidder or its Technical Partners in relation to acceptance or rejection of any e-Bid.
- b. Subject to Clause 3.4.5 no Bidders or its Technical Partners shall contact NMRC on any matter relating to his e-Bid from the time of Bid opening to the time contract is awarded.
- c. Any effort by the Bidder or by its Technical Partners to influence NMRC in the Bid evaluation, Bid comparison or contract award decisions, may result in the rejection of his Bid.

### **3.3. Earnest Money Deposit**

#### **3.3.1. Earnest money deposit (EMD)**

- a. The tenderer shall furnish, as part of its e-Bid, an e-Bid security/ EMD as stated in Data Sheet in form of NEFT only in favour Noida Metro Rail Corporation Limited in the A/c No. mentioned in **Data Sheet (Page No. 5)**. The scanned copy of NEFT receipt of Security/ EMD with transaction Id certified by the same bank must be enclosed along with the e-Bid. Tender without Earnest Money in the prescribed form, will not be accepted.
- b. Any e-Bid not secured in accordance with above shall be treated as non-responsive and rejected by NMRC.
- c. Unsuccessful Bidder's EMD will be returned within 45 days after conclusion or discharge of the tender.
- d. No interest will be paid by the Purchaser on the Earnest Money Deposit.
- e. The successful Bidder's e-Bid EMD will be adjusted with Performance Bank Guarantee, if applicable, to be submitted by the Bidder upon signing the contract.
- f. The EMD may be forfeited:

- i. If Bidder (a) withdraws its e-Bid during the period of e-Bid validity specified by the Bidder on the e- bid form: or (b) does not accept the correction of errors or (c) modifies its e-Bid price during the period of e-Bid validity specified by the Bidder on the form.
- ii. In case of a successful Bidder, if the Bidder fails to sign the contract with the Corporation.

### **3.4. Opening and Evaluation of Bids**

#### **3.4.1. Opening of technical e-Bid by NMRC**

- a. NMRC will open all technical e-Bids, in the presence of Bidder`s representatives who choose to attend on the prescribed date of opening at NMRC Office. The Bidder's representatives who are present shall sign a register evidencing their attendance. In the event of the specified date e-Bid opening being declared a holiday for the Corporation, the e-bids shall be opened at the appointed time and place on the next working day.
- b. The Bidder who is participating in e-Bid should ensure that the NEFT of Bid Processing Fee and EMD must be submitted in the prescribed account of NMRC within the duration (strictly within opening & closing date and time of individual e-Bid) of the work as mentioned in Bid notice, otherwise, in any case, e-Bid shall be rejected.
- c. The Bidders names and the presence or absence of requisite e-Bid security and such other details as NMRC at its discretion may consider appropriate, will be announced at the opening.

#### **3.4.2. Opening of financial e-Bid**

- a. After evaluation of technical e-Bid, through the evaluation committee NMRC shall notify those Bidders whose technical e-Bids were considered non-responsive to the conditions of the contract and not meeting the technical specifications and qualification requirements indicating that their financial e-Bids will not be opened.
- b. NMRC will simultaneously notify the Bidders, whose technical e-Bids were considered acceptable to the Corporation. The notification may sent by e-mail provided by Bidder.
- c. The financial e-Bids of technically qualified Bidders shall be opened in the presence of technically qualified Bidders who choose to attend. The date and time for opening of financial bids will be communicated to the technically qualified Bidders subsequently after completion of technical bids evaluation through e-mail provided by the Bidder.

### **3.4.3. Correction of Errors**

- a. Financial Bids determined to be responsive will be checked by NMRC for any arithmetic errors. Where there is a discrepancy between the rate quoted in the Financial Bid, in figures and in words, the amount in words will prevail over the amounts in figures, to the extent of such discrepancy.
- b. The amount stated in the Financial Bid will be adjusted by NMRC in accordance with the above procedure for the correction of errors and shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected quoted rate of e-Bid, his e-Bid will be rejected, and his Bid Security shall be liable for forfeiture in accordance with Clause 3.3.1f

### **3.4.4. Examination of e-Bid document**

- a. The NMRC will examine the e-Bid to determine if:
  - i. They are complete;
  - ii. They meet all the conditions of the contract;
  - iii. The required e-Bid Processing fee, EMD and other required documents have been furnished;
  - iv. The documents have been properly digitally signed; and
  - v. The e-Bids are generally in order.
- b. Any e-Bid or e-Bids not fulfilling these requirements shall be rejected.

### **3.4.5. Contacting NMRC**

- a. No Bidder shall contact NMRC on any matter relating to his/her e-Bid, from the time of the e-Bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of NMRC, he/she can do so in writing.
- b. Any effort by a Bidder to influence NMRC in its decisions on e-Bid evaluation, e- bid comparison or contract award may result in rejection of the Bidder's e-Bid.
- c. In the event of any information furnished by the Bidder is found false or fabricated, the minimum punishment shall be debarring /blacklisting from Noida Metro works and legal proceeding can also be initiated. EMD of such bidders will be forfeited.

### **3.4.6. Confidentiality**

- a. Information relating to the examination, clarification, evaluation, and recommendation for the Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising NMRC in relation to or

matters arising out of, or concerning the Bidding Process. Any effort by a Bidder to exert undue or unfair influence in the process of examination, clarification, evaluation and comparison of Proposal shall result in outright rejection of the offer, made by the said Bidder.

- b. NMRC shall treat all information, submitted as part of Bid, in confidence and shall require all those who have access to such material to treat the same in confidence. NMRC may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or NMRC or as may be required by law or in connection with any legal process.

### **3.5. Award of Contract**

#### **3.5.1. Award Criteria**

- a. NMRC will award the contract as per evaluation criteria stated in the RFP Document.
- b. NMRC will award the contract to the successful Bidder whose bid has been determined to be responsive to all the conditions of the contract and meeting the eligibility requirement of the bidding document.

#### **3.5.2. Notice of Award (NOA)**

- a. Prior to the expiration of the period of e-Bid validity, NMRC will notify the successful Bidder in writing, by letter/e-mail/fax, that its e-Bid has been accepted.
- b. The acceptance of NOA will constitute the formation of the contract.

#### **3.5.3. Contract**

- a. This contract is for the supply, install, commissioning, training and maintenance of the equipment of the description, specifications and drawings, and in the quantities set forth in the contract on the date or dates specified therein. All equipment must be brand new and unused. Unpacking/seal opening has to be done in presence of NMRC.
- b. The whole contract is to be executed in the most approved, substantial and workmanship manner, to the entire satisfaction of the Purchaser or his nominee, who, both personally and may his deputies, shall have full power, at every stage of progress, to inspect the equipment at such times as he may deem fit and to reject any of the equipment which he may disapprove

#### **3.5.4. Signing of contract**

At the same time as NMRC notifies the successful Bidder that its e-Bid has been accepted, the successful Bidder shall have to sign the contract agreement with relevant document as mentioned in the RFP. The agreement draft along with other related terms and conditions will be same as furnished in this e-Bid. Any refusal will not be allowed. The Bidder need not download and submit in hard copies of these documents.

### **3.5.5. NMRC's right to accept any e-Bid and to reject any or all e-Bids**

NMRC reserves the right to accept or reject any e-Bid, and to annul the e-Bid process and reject all e-Bids at any time prior to contract award, without thereby incurring any liability to the affected tenderer or tenderers.

## **4. Eligibility, Evaluation and Selection Process**

### **4.1. Eligibility Criteria**

The Bidder's competence and capability is proposed to be established by the following parameters. The Bidder should meet all the criteria given in this section.

- a. The Bidder should be Sole proprietorship/ partnership firm/ public limited company/ private limited company.
- b. The Bidder should be licensed manufacturer who manufactures the items offered

Or

The Bidder should be official Indian representative of the licensed manufacturer who manufactures the items offered.

It is to be noted that in case of Indian Representative and his services / facilities in India:

- i. The Foreign Bidder shall include in his offer the name of the person /firm who will be acting as his representative in India in respect of his offer. He shall also indicate the after sales service facilities through his representative in India.
  - ii. Foreign firms quoting directly against the inquiry or through their representatives must specify the servicing facilities in India.
- c. The Bidder should have supplied in India during last **7 (Seven) years** period ending last day of month previous to the one in which the bids are invited should be either of the following:

- i. **One order** of similar nature of value not less than **Rs. 4,72,26,564** (Rupees Four Crores Seventy Two Lakhs Twenty Six Thousand Five Hundred and Sixty Four only) or
- ii. **Two orders** of similar nature of value not less than **Rs. 2,95,16,602** (Rupees Two Crores Ninety Five Lakhs Sixteen Thousand Six Hundred and Two only) **each** or
- iii. **Three orders** of similar nature of value not less than **Rs. 2,36,13,282** (Rupees Two Crores Thirty Six Lakhs Thirteen Thousand and Two Hundred and Eighty Two only) **each** or

**Definition of Similar Works** - Supply, Installation, Testing, Commissioning, Training & Maintenance of Audio-Video System, Video conference System in Metro Railways/ Railways/ Airports /Government /Government undertaking /Semi Government / Govt. Controlled Institutions in India. i.e. Combined Value of similar order must greater than or equal to values specified above clause 4.1.(c)

**The Bidder must enclose purchase order along with satisfactory performance certificate issued on the same order by the same consignee.**

- d. The Bidder should have at **least 7 (Seven) years'** experience of supply, installation, commissioning, training and maintenance of the quoted items and the items quoted by them should have satisfactory performance during last 7 (Seven) years.
- e. The Bidder should have minimum **average annual turnover** of **Rs. 8,85,49,807**(Rupees Eight Crore Eighty Five Lakhs Forty Nine Thousand Eight Hundred and Seven only) in the last 3 (Three) Financial Years (**2016-2017, 2017-18, 2018-19**) preceding the Bid Due Date.
- f. The Manufacturer should have adequate plant and manufacture capacity to manufacture and supply the items offered within the delivery schedule as mentioned in the tender document.
- g. The Manufacturer has established quality control system to monitor quality check at all stages of the manufacturing process.
- h. The Bidder (and the Manufacturer, in case the Bidder is the Representative) should not be black listed /debarred/ declared ineligible for corrupt and fraudulent practices by any government/government-undertaking/ semi-government/ govt. controlled institutions in India and should not have any disciplinary proceedings pending against the Bidder in last 5 (five) financial years.
- i. The Bidder (and the Manufacturer, in case the Bidder is the Representative) should have positive net worth in the last 3 (Three) Financial Years (**2016-2017, 2017-18, 2018-19**) preceding Bid Due Date.



- j. NMRC if required may seek clarification from bidders during the technical evaluation.
- k. The Bidder (in case of representative of OEM, Original Equipment Manufacturer) must be authorized by OEM to participate in this tender.

The Bidder shall also furnish the following:

- a. For above criteria 4.1a
    - i. Statutory proof of existence as the legal entity
  - b. For above criteria 4.1b
    - i. Statutory proof of existence as the legal entity
    - ii. Offers are required from the actual manufacturers of the equipment or Indian representatives in case of foreign manufacturer, who should submit a letter of authority from their Principals as in Form 9: Proforma for Corporation from Manufacturers
- In case of Indian Representative and his services / facilities in India*
- iii. The name and address of the Indian representative (with documentary evidence)
  - iv. The precise relationship between the foreign manufacturer /principals and their Indian representative
  - v. The mutual interest which the manufacturer /principal and the Indian representative have in the business of each other
  - vi. Foreign Tenderer has to submit a certificate that bidder is not having any Commission Agent in India and no agency commission will be paid, otherwise it shall be sufficient ground for rejecting of his offer. Indian representative should also mention Income tax permanent account number and certification of registration of OEM and registration of Indian representative.
  - vii. All services namely Implementation of Audio-Video system (including DLP & CAMC) need to be rendered by the Indian representative.
  - viii. Certificates /documents indicating for Past performance of last 7 years.
  - ix. Copy of GST registration
- c. For above criteria 4.1c and 4.1d
    - i. A statement as in Form 4: Work Experience
    - ii. NOA showcasing experience of at least 7 (Seven) years of Implementation of Audio-Video System.
    - iii. Detailed technical description of each of the equipment offered
    - iv. Documents for installation details etc.
    - v. Details regarding power supply equipment such as UPS, invertor

- vi. Manual for operation and maintenance of the equipment supplied
  - vii. Details of test accessories and test facilities provided along with write up testing and troubleshooting procedures. Technical literature of equipment to be supplied, along with the supply of materials.
  - viii. All necessary software/ Originals CD/DVDs/USBs which are part of technical equipment
  - ix. Guarantee/Warranty certificate to include the One year DLP period
  - x. List of consumable's and spare parts per equipment
- d. For above criteria 4.1 e and 4.1i
- i. Form 5: Financial Capability Details
  - ii. A copy of the Annual Reports (Profit and Loss Account and Balance Sheet) for the last 3 (Three) Financial Years of Bidder (and the Manufacturer, in case the Bidder is the Representative)
  - iii. A copy of current valid ITCC (Income Tax)
- e. For above criteria 4.1f and 4.1g
- i. Form 9: Proforma for Corporation from Manufacturers
  - ii. Certificate for ISO / CE/ EUR 1/Equivalent.
  - iii. Quality Control Plan
- f. For above criteria 4.1h
- i. Form 7: Undertaking

#### **4.2. Compliance with Technical Specifications**

The equipment offered by the bidders must comply with the stipulated technical specifications as mentioned in the tender documents

#### **4.3. Information for Purpose of Evaluation**

- a. The Bid must be accompanied by the Audited Annual Reports of the Bidder for the last 3 (Three) financial years, preceding the year in which the Bid is made.

#### **4.4. Information of the Technical and Financial Proposal**

- a. The Bidder satisfying technical and financial eligibility criteria under Clause 4.1 shall be considered as technically and financially qualified.
- b. The financial proposal of only technically qualified Bidders shall be opened for evaluation.

- c. The Bidder with the lowest quoted price for the total equipment + CAMC cost to be supplied at the destination sites of Noida and Greater Noida Metro rail stations with CAMC of 3 years in the financial quote (L1 bidder) shall be selected for the award of contract. The offers received from bidders should indicate the rate of taxes/ duties, etc. as leviable on particular item except GST. In case duty or taxes are applicable, the tenderer should quote accordingly. Evaluation of offers will be made on destination sites inclusive of all taxes and Duties except GST.

#### **4.5. Selection of Bidder**

After the above evaluation process and, the Technically Qualified Bidder who is declared as L1 (lowest quoted price) may be declared as the selected Bidder (“Selected Bidder”) for the Project.

- a. In the event that two or more responsive bidders have quoted the same price, which is also the lowest one rate offered, then all such bidders will be given an opportunity to revise their financial bid by submitting fresh financial bid, which shall necessarily be lower than the previous bid. The revised sealed financial bid shall be submitted by the date and time as notified to the concerned bidders.
- b. In case, two or more responsive bidders again quote the matching rates in their revised Financial Bids, then the decision shall be taken by MD, NMRC and notified to the concerned Bidders.
- c. Prior to the expiry of the period of bid validity, NMRC will notify the successful bidder in writing, either through Notice of Award (NOA), that his bid has been accepted.
- d. The NOA would be sent in duplicate to the successful bidder, who will return one copy to NMRC duly acknowledged, signed and stamped by the authorized signatory of the bidder, as an unconditional acceptance of the NOA, within 15 (fifteen) days from the date of issue of NOA.
- e. No correspondence will be entertained by NMRC from the unsuccessful bidders.

#### **4.6. Notice of Award and Execution of Contract Agreement**

- a. NMRC will notify the Successful Bidder by a NOA that its bid has been accepted.
- b. The Selected Bidder shall, within 15 (fifteen) days of the receipt of the NOA, sign and return the duplicate copy of the NOA in acknowledgement thereof along with letter of acceptance of NOA. In the event, the duplicate copy of the NOA duly signed by the Selected Bidder and letter of acceptance of NOA is not received by the stipulated date, NMRC may, unless it consents to extension of time for submission thereof, appropriate the Bid Security of such Bidder as mutually agreed genuine pre-estimated loss and

damage suffered by NMRC on account of failure of the Selected Bidder to acknowledge the NOA

- c. The Successful Bidder shall execute the Contract Agreement within 45 (forty-five) days of the letter of acceptance of NOA or such extended period as may be decided by the Corporation.
- d. Failure of the Successful Bidder to comply with the requirement of acknowledgement of NOA shall constitute sufficient grounds for the annulment of the NOA, and forfeiture of the bid security.
- e. The Purchaser reserves the right to increase or decrease the quantity up to 25% of the quantity offered by the successful tenderer. The bidder is bound to accept the increase or decrease in the tendered quantity up to 25% under this clause without any change in unit price.

#### **4.7. Performance Bank Guarantee / Security Deposit**

- a. To fulfil the requirement of performance bank guarantee during the implementation period, the Successful Bidder (herein referred to as the “Contractor”) shall deposit 10% of the value of the tender (price of equipment plus total value of CAMC) in form of NEFT or unconditional and irrevocable Bank Guarantee bond issued by a scheduled bank in favour of NMRC valid for 1 years and 6 months within 30 days from Notice of Award. EMD amount of successful bidder shall be adjusted in the performance bank guarantee, if applicable. For unsuccessful bidder, EMD shall be refunded without any interest. Also the Successful Bidder shall deposit 10% of the value of the CAMC in form of NEFT or unconditional and irrevocable Bank Guarantee bond issued by a scheduled bank in favour of NMRC valid for 3 years and 6 months 30 days prior to the commencement of first year of AMC. The expenses to be incurred for the making Performance Bank Guarantee (PBG) shall be borne by the Contractor.
- b. A Contract agreement will have to be signed by the Contractor at his cost on proper stamp paper. Without performance guarantee by Contractor, Contract agreement shall not be signed.
- c. It is to note that if Contract value increase by more than 25% of the original contract value, the Performance Bank Guarantee shall be increased accordingly.

In case of any variation given to successful bidder, equivalent 10% PBG will be required to submit to NMRC, for a period of 1year and 6 months.

- d. Failure to submit PBG within timelines will attract LD of 0.5% per week of the total value of contract, subject to maximum of 10%, after which the contract will be deemed to be cancelled.

- e. NMRC reserves the right for deduction of NMRC dues from Contractor's Performance Bank Guarantee/ Security Deposit (interest free) for – Any penalty imposed by NMRC for violation of any terms and conditions of agreement committed by the Contractor.
  - i. Any amount which NMRC becomes liable to the Government/Third party due to any default of the Contractor or any of his director/ employees/ representatives/ servant/ agent, etc.
  - ii. Any payment/ fine made under the order/judgment of any court/consumer forum or law enforcing Contractor or any person duly empowered in his behalf.
  - iii. Any outstanding payment/ claims of NMRC remained due after completion of relevant actions as per agreement.
- f. Once the amount under above Clause is debited, the Contractor shall replenish the Security Deposit/ Performance Bank Guarantee to the extent the amount is debited within 15 days period, failing which, it shall be treated as Contractor Event of Default and will entitle NMRC to deal with the matter as per the provisions of RFP and Contract Agreement.

#### **4.8. Contract during Proposal Evaluation**

- a. Proposals shall be deemed to be under consideration immediately after they are opened and until such time NMRC makes official intimation of award/ rejection to the Bidders. While the Proposals are under consideration, Bidders and/ or their representatives or other interested parties are advised to refrain from contacting by any means, NMRC and/ or their employees/ representatives on matters related to the Proposals under consideration till the time Contract is awarded
- b. Any effort by a Bidder to influence NMRC in its decisions on e-Bid evaluation, e-Bid comparison or contract award may result in rejection of the Bidder's e-Bid.
- c. In the event of any information furnished by the Contractor is found false or fabricated the minimum punishment shall be debarred/ blacklisting and the legal proceeding may also be initiated. EMD of such Bidders will be forfeited.
- d. If the Bidder wishes to bring additional information to the notice of NMRC, he/she can do so in writing. All correspondence/ enquiry should be submitted to the following in writing by fax/ post/courier:

**Executive Director**

**Noida Metro Rail Corporation (NMRC) Limited**

**Block-III, 3rd Floor, Ganga Shopping Complex,**

**Sector-29, District Gautam Budh Nagar,**

**Noida -201301, Uttar Pradesh**

**Email: nmrcafc@gmail.com**

- e. No interpretation, revision, or other communication from NMRC regarding this solicitation is valid unless in writing and signed by the competent authority from NMRC.

#### **4.9. Other Instruction**

- a. Canvassing in connection with the tenders is strictly prohibited and the tenders, submitted by Bidder, who resort to canvassing, are liable to be rejected. EMD will be forfeited of those tenders who will be found non serious and if it is felt by the tender committee that the Bidders submitted their tender only to influence the tendering process.
- b. On acceptance of the tender, the name of the accredited representative of the Contractor, who would be responsible for taking instructions from the NMRC or the official deputed by NMRC, shall be communicated to the NMRC or the official deputed by NMRC in writing.

#### **4.10. Insurance**

- a. All risk cover like transit storage and insurance (90 days from delivery) shall be arranged by the successful bidder.

#### **4.11. Space for Temporary Storage in Noida/ Greater Noida**

- a. In case, if any site is not ready for installation, bidder should make arrangement for temporary storage in Noida/ Greater Noida for a period of 90 days and take necessary action for safeguarding against all possible measures. No additional amount will be paid towards the same.

#### **4.12. Project Financial Terms**

##### **4.12.1. Payment Terms**

The standard payment terms subject to recoveries, if any, by way of liquidated damages will be as under-

- a. **10% Mobilization Advance on submission of Design Documents.**
- b. **40% payment** of the supply value of equipment will be made on Delivery at NMRC sites.
- c. **35% payment** will be made after submission of following documents:
  - i. Certificate from the purchasers of having receipt of Performance Bank Guarantee.

- ii. Invoice in duplicate
  - iii. Certificate from purchaser/ consignee indicating successful Installation, testing, commissioning, Training of equipment along with necessary operational training to its staff at the site as indicated in NOA.
  - iv. Insurance Copy (transit plus storage)
  - v. Packing list
- b. **10% payment** will be released on the Final Handover.
- c. Out of **5% Balance amount**:
- i. will be released at the end of DLP period after deducting if any charges for delay in attending fault, as penalty;
- d. Payment of CAMC charges shall be made on half yearly at the end of the 6months against the consignee's certificate indicating that firm has successfully maintained the equipment during the claim period.
- Payment should be followed strictly as per terms and conditions of Tender Documents and Tax as applicable will be deducted.

#### **4.12.2. Payment Terms**

Payment for supply, installation, commissioning and training etc. shall be made by NMRC in **(INR) Indian Rupees** against the documents as mentioned in Clause 4.12.1.

### **5. General Conditions of Contract (GCC)**

These conditions shall be part of the contract agreement.

#### **5.1. General Provisions**

##### **5.1.1. Governing law and jurisdiction**

These general conditions shall be governed by and construed in accordance with the laws in the territory of India. Irrespective of the place of delivery and the place of payment under the contract, the contract shall be deemed to have been made at the panel in India from where the acceptance of tender has been issued. Any dispute arising between the parties or arising out of this project or these terms shall be subject to the exclusive jurisdiction of, and venue in, the District court located in Gautam Budh Nagar, Uttar Pradesh, India.

##### **5.1.2. Notices**

- a. Any notice, request or consent required or permitted to be given or made pursuant to these general conditions shall be in writing. Any such notice, request or consent shall be

deemed to have been given or made when delivered in person to an authorized representative of the party to whom the communication is addressed, or when sent to such party at the mentioned address.

- b. A party may change its address for notice hereunder by giving the other party notice in writing of such change to the mentioned address.

#### **5.1.3. Authorized Representatives**

Any action required or permitted to be taken, and any document required or permitted to be executed under these general conditions by the Corporation or the Successful Bidder may be taken or executed by the officials as formally designated by each party.

#### **5.1.4. Taxes and Duties**

- a. The Contractor shall bear and pay all taxes, duties, levies and charges assessed on the Contractor, its Subcontractors or their employees by all municipal, state or national government authorities in connection with the Facilities in and outside India, the amount of which is deemed to have been included in the Contract Price.
- b. In the event of exemption or reduction of any Cess /Levy being granted by the Government in respect of the works, the benefit of the same shall be passed on to the purchaser.
- c. The Contractor shall ensure full compliance with tax laws of India with regard to this contract and shall be solely responsible for the same. He shall keep the Employer fully indemnified against liability of tax, interest, penalty etc., of the Contractor's in respect thereof, which may arise.

### **5.2. Commencement, Completion, Modification and Termination of Contract**

#### **5.2.1. Effectiveness of Contract**

This Contract shall come into effect on the date the Contract is signed by both the parties and such other later date as discussed and agreed with the Bidder.

#### **5.2.2. Commencement of Services**

The Firm shall begin carrying out the Services from the date of acceptance of NOA or any such date as specified by the Corporation.

#### **5.2.3. Expiration of Contract**

Unless terminated earlier pursuant to Clause 5.2.6 hereof, these general conditions shall expire at the end of such time period as given in the time schedule in RFP Document.

#### **5.2.4. Modifications or Variations**



Any modification or variation of the terms and conditions of these general terms, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification or variation made by the other Party.

#### **5.2.5. Force Majeure**

- a. Definition: For the purpose of these general terms, "Force Majeure" means an event which is beyond the reasonable control of a Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.
- b. No Breach of Contract: The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.
- c. Extension of Time: Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.
- d. Payments: During the period of their inability to perform the Services as a result of an event of Force Majeure, the Contractor shall be entitled for time extension for such period.

#### **5.2.6. Termination of Contract**

- a. If the contractor fails to deliver the equipment or any installment thereof within the period fixed for such delivery in the contract or as extended or at any time repudiates the contract before the expiry of such period, the purchaser may without prejudice to his other rights - recover from the Contractor as a penalty a sum equivalent to 0.5 % value of total NOA (contract value) per week subject to maximum of 10%, after which contract will be deemed as cancelled & PBG will be encashed by the Purchaser.

Upon Termination of this Agreement for any reason whatsoever

- b. The termination of this Agreement shall not release contractor from its obligation to pay any sums then owing to their failure to perform or discharge any liability that had been incurred prior thereto.

### **5.3. Insolvency and Breach of Contract**

The Purchaser may at any time, issue notice in writing summarily terminate the contract without compensation to the Contractor in any of the following events, that is to say –

- a. If the Contractor being an individual or a firm - Any partner thereof, shall at any time, be adjudged insolvent or shall have a receiving order or order for administration of his estate made against him or shall take any proceeding for composition under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or enter into any assignment or composition with his creditors or suspend payment or if the firm be dissolved under the Partnership Act, or
- b. If the Contractor being a company is wound up voluntarily or by the order of a Court or a Receiver, Liquidator, or Manager on behalf of the debenture holders is appointed, or circumstances shall have arisen which entitle the Court or Debenture holders to appoint a Receiver, Liquidator or Manager, or
- c. If the contractor commits any breach of the contract not herein specifically provided for
- d. Provided always that such determination shall not prejudice any right of action or remedy which shall have accrued or shall accrue thereafter to the Purchaser and provided also the Contractor shall be liable to pay to the Purchaser any extra expenditure he is thereby put to and the Contractor shall, under no circumstances, be entitled to any gain on re purchase.

### **5.4. Consequences of Rejection**

If on inspection of the equipment at site, are found to be not matching the requirement of purchaser as mentioned in the tender document and are being rejected by the Inspecting Officer/team of NMRC or its representatives, the Contractor would be required to make satisfactory supplies of brand new and unused equipment meeting the requirement as mentioned in the tender document within the stipulated period of delivery.

### **5.5. Removal of rejected stores**

- a. On rejection of any equipment submitted for inspection at a place other than the premises of the Contractor, such stores shall be removed by the Contractor at his own cost subject as herein after stipulated, within 10 days of the date of intimation of such rejection.
- b. All rejected equipment shall in any event and circumstances remain and always are at the risk of the Contractor immediately on such rejection. If such equipment are not removed by the Contractor within the periods aforementioned, the Inspecting Officer/NMRC representatives or its authorized personnel may remove the rejected equipment .The purchaser shall, in addition, be entitled to recover from the Contractor

the handling and storage charges on the rejected equipment after the expiry of the time-limit mentioned above.

## **5.6. Delivery**

The Contractor shall be required by the Purchaser to deliver the equipment on Delivery Duty Paid (DDP) basis at Noida and Greater Noida metro rail stations, the quantities of the equipment detailed therein shall be delivered not later than the dates specified in the NOA. The delivery will not be deemed to be complete until and unless the equipment are inspected and accepted by the Inspecting Officer /team of NMRC or its representatives.

### **5.6.1 Notification of Delivery**

Notification of delivery and dispatch in regard to each and every installment shall be made to the Purchaser immediately on dispatch and delivery. The tracking number of transport mode along with necessary details for tracking of the dispatched equipment's needs to be communicated to the purchaser on every dispatch.

### **5.6.2 Time for delivery**

The time and date specified in the contract or as extended for the delivery of the Equipment shall be deemed to be the essence of the contract and delivery must be completed not later than the dates so specified or extended by Purchaser.

### **5.6.3 Progress of Deliveries**

The contractor shall allow reasonable facilities and free access to his works and records to the inspecting officer; progress officer or such other officer as may be nominated by the Purchaser for the purpose of ascertaining the progress of the deliveries under the contract.

### **5.6.4 Progress of Deliveries**

The purchaser may extend the timeline for delivery of equipment (at one or more locations) at his own discretion due to the reasons which may be beyond the control of purchaser. The price quoted shall remain same even in case of extended delivery time line. However in case of extended delivery, the DLP and CAMC period calculation will be done as per the acceptance certificate issued by the purchaser.

## **5.7. Obligations of the Contractor**

- a. The Contractor/Bidder shall supply, install, commission, training and carry out defect liability period (DLP) and Comprehensive Annual Maintenance contract (CAMC) obligation (including associated purchases) with due care and diligence in accordance with the Contract.

- b. The Contractor confirms that it has entered into this Contract on the basis of a proper examination of the data relating to the Facilities provided by the Purchaser. The Contractor acknowledges that any failure, to acquaint itself with all such data and information shall not relieve its responsibility for properly estimating the difficulty or cost of successfully performing the Facilities.
- c. The Contractor shall comply with all laws in force in India. The laws will include all local, state, national or other laws that affect the performance of the Contract and bind upon the Contractor. The Contractor shall indemnify and hold harmless the Purchaser from and against any and all liabilities, damages, claims, fines, penalties and expenses of whatever nature arising or resulting from the violation of such laws by the Contractor or its personnel, including the Subcontractors and their personnel.
- d. **Conflict of Interests:** The Contractor shall hold the Corporation's interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests.
- e. **Confidentiality:** Except with the prior written consent of the Corporation, the Contractor shall not at any time communicate to any person or entity any information acquired in the course of the Services. The Contractor shall not use such documents, data and other information received from the Purchaser for any purpose other than the design, procurement of Plant and Equipment, construction or such other work and services as are required for the performance of the Contract. This clause shall survive even after expiry of this contract.
- f. If any damages / loss / theft. etc. occurs in the site premise / area under supervision due to personnel's negligence / failure during the course of project implementation or otherwise the same shall be the sole responsibility of the Contractor till the time of final handover and necessary compensation shall be paid by the Contractor to NMRC as per the actual cost assessed by NMRC.
- g. The Contractor shall ensure full compliance with various Tax Laws of India with regard to this contract and shall be solely responsible for the same. He shall submit copies of acknowledgements, evidencing filing of returns every year and shall keep NMRC fully indemnified against liability of tax, interest, penalty etc. of the contract in respect thereof, which may arise.

## **5.8. Obligations of Corporation**

NMRC agrees to provide support to the Contractor and undertake to observe, comply with and perform, subject to and in accordance with the provisions of the Agreement and the Applicable Laws.

### **5.8.1. Assistance and Exemptions**

The Corporation shall use its best efforts to ensure that it shall provide the Contractor such assistance as reasonably required for delivering the services.

## **5.9. Packing and Marking**

### **5.9.1.Packing**

- a. The Contractor shall pack at his own cost the equipment sufficiently and properly for transit by rail/road, air and/or sea so as to ensure their being free from loss or damage on arrival at their destination sites as specified in the NOA. He shall decide the packing for the stores by taking into account the fact that the stores will have to undergo arduous transportation before reaching the destination and will have to be stored and handled in tropical climatic conditions (Including Monsoons) before being put to actual use.
- b. Unless otherwise provided in the contract, all containers (including packing cases, boxes, tins, drums and wrappings) in which the stores are supplied by the Contractor shall be considered as non-returnable and their cost as having been included in the contract price.
- c. Each packages shall contain a packing note specifying the name and address of the Contractor, the number and date of the acceptance of tender and the Designation of the Purchase Officer issuing the supply orders, the description of the equipment and the quantity contained therein.

### **5.9.2.Marking**

- a. The marking of all goods supplied shall comply with the requirement of the Indian Acts relating to merchandise marks or any amendment thereof and the rules made there under.
- b. The following particulars should be stenciled with indelible paint on all the materials/packages:-
  - i. Contract No.
  - ii. Site Name.
  - iii. Purchaser Name & logo
- c. In addition to the marking as specified above, distinguish color marks should be given so as to distinguish the ultimate Consignees in India

## **5.10. Consignee's Right of Rejection**

Notwithstanding any approval which the Inspecting Officer may have given in respect of the stores or any materials or other particulars or the work or workmanship involved in the

performance of the contract (whether with or without any test carried out by the Contractor or the Inspecting Officer or under the direction of the Inspecting Officer) and notwithstanding delivery of the stores where so provided to the interim consignee, it shall be lawful for the consignee, on behalf of the Purchaser, to reject the stores or any part, portion of consignment thereof within 45 days after actual delivery thereof to him at the place or destination specified in the contract if such stores or part, portion of consignment thereof is not in all respects in conformity with the terms and conditions of the contract whether on account of any loss, deterioration or damage before dispatch or delivery or during transit or otherwise howsoever.

#### **5.11. Responsibility for Completeness**

- a. Any fittings or accessories which may not be specifically mentioned in the specifications but which are useful or necessary are to be provided by the Contractor without extra charge, and the equipment must meet the operational requirement at the place of delivery.
- b. The work (on turn-key basis) shall be performed at the destination specified in the NOA.
- c. All the charges incurred towards man-powers, materials, laying of cables, transportation, making the equipment operational etc. at the place of delivery shall be borne by the Successful Bidder.

#### **5.12. Good Faith**

The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.

#### **5.13. Fraud and Corrupt Practices**

- a. The Bidders and their respective officers, employees, agents and advisers shall observe highest standard of ethics during Bidding Process and subsequent to issue of NOA and during subsistence of Contract Agreement. Notwithstanding anything to the contrary contained herein, or in the NOA or the Contract Agreement, NMRC may reject a Bid, withdraw the NOA, or terminate the Contract Agreement, as the case may be, without being liable in any manner whatsoever to the Bidder or Contractor, as the case may be, if it determines that the Bidder or Contractor, as the case may be, has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process. In such an event, NMRC shall be entitled to forfeit & appropriate Bid Security or Security Deposit (interest free)/ Performance Bank Guarantee, as the case may be, as Damages, without prejudice to any other right or remedy available to NMRC under Bidding Documents and/ or Contract Agreement, or otherwise.

- b. Without prejudice to the rights of NMRC under Clause 5.13a hereinabove and the rights and remedies which NMRC may have under the NOA or the Contract Agreement, or otherwise if a Bidder or Contractor, as the case may be, is found by NMRC to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Bidding Process, or after the issue of the NOA or the execution of the Contract Agreement, such Bidder or Contractor shall not be eligible to participate in any tender or RFP issued by NMRC during a period of 3 (Three) years from the date such Bidder is found by NMRC to have engaged, directly or indirectly, in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.
- c. For the purposes of this Clause, the following terms shall have the meaning herein after respectively assigned to them:
  - i. “corrupt practice” means the offering, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the selection process or in contract execution;
  - ii. “fraudulent practice” means a misrepresentation or omission of facts in order to influence a selection process or the execution of a contract;
  - iii. “collusive practices” means a scheme or arrangement between the Contractor, with or without the knowledge of the authority, designed to establish prices at artificial, non-competitive levels;
  - iv. “coercive practices” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract
- d. Measures to be taken:
  - i. The Corporation shall have right to cancel the engagement of the Contractor, if found to be indulged in corrupt, fraudulent, collusive or coercive practices either during the selection process or during the execution of the contract.

## **5.14. Settlement of Disputes**

### **5.14.1 Amicable Settlement**

The Parties agree that the avoidance or early resolution of disputes is crucial for a smooth execution of the Contract and the success of the Project. The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.

### **5.14.2 Arbitration**

In the event of any dispute and/ or difference whatsoever arising under this contract or in connection therewith, including any question relating to the meaning, scope and interpretation of this Contract or it's clause or any alleged breach thereof, the same shall be attempted to be settled by mutual discussions and consultations between the parties hereof. In the event of any such dispute, any/ or difference is not settled in aforesaid manner, then the dispute(s) shall be referred for arbitration. The sole Arbitrator would be appointed by the MD, NMRC. The decision of the said sole Arbitrator shall be final subject to the above, the provisions of the Arbitration and Conciliation Act, 1996 shall apply. The arbitration proceedings shall take place in Noida.

#### 5.14.3 Jurisdiction

With respect to any dispute arising out of or related to this Contract, the parties consent to the exclusive jurisdiction of, and venue in, the District Court located in Gautam Budh Nagar, Uttar Pradesh, India.

#### 5.14.4 Cost

The cost of arbitration shall be borne by the respective parties. The cost shall, inter alia, include the fees of the Arbitrator(s) as per rates fixed by the Employer from time to time.

#### 5.14.5 Suspension of Work on Account of Arbitration

There should be no impact on the ongoing supply, installation, testing, commissioning, maintenance, operational requirement of equipment along with training to the staff of the purchased in case the matter is referred to Arbitration.

### **5.15 Determination or Rescission of Agreement**

NMRC without any prejudice to its right against the Contractor in respect of any delay by notice in writing absolutely determines the contract in any of the following cases:

- a. If the Contractor being a firm/company shall pass a resolution or the court shall make any order that the firm/ company shall be wound up or if a receiver or a manager on behalf of the creditor shall be appointed or if circumstances shall arise which entitle the court or creditor to appoint a receiver or a manager or which entitled the court to make up a winding order.
- b. If the Contractor is in breach of any of terms of Agreement
- c. When the Contractor has made himself liable for action under any of the cases aforesaid the Corporation shall have powers :
  - i. To determine or rescind the Agreement
  - ii. To engage another Contractor to carry out the balance work debiting the Contractor the excess amount if any so spent



### **5.16 General Indemnity**

The prices stated are to include all rights (if any) of patent, registered design or trade mark and the Bidder shall at all times indemnify the Purchaser against all claims which may be made in respect of the equipment for infringement of any right protected by patent, registration of designs or trade mark; provided always that in the event of any claim in respect of alleged breach of a patent, registered designs or trade mark being made against purchaser, the Purchaser shall notify the bidder of the same and the bidder shall, at his own expense, either settle any such dispute or conduct any litigation that may arise there from.

The bidder shall return all such property and shall be responsible for the full value thereof to be accessed by the Purchaser whose decision shall be final and binding on the bidder. The bidder shall be liable for loss or damage to such property from whatever cause happening while such property is in the possession of or under the control of the bidder, his servants, workmen or agents.

### **5.17 Miscellaneous Conditions of Contract**

- a. By submitting the Proposal, the Bidder agrees to all the points explicitly included in the scope of work and services & all other terms & conditions mentioned in the RFP.
- b. While discharging the assigned services, the Bidder shall follow all applicable Acts, rules and regulations with regard to manpower and services. It shall also follow the instructions issued by NMRC from time to time. The Bidder shall also keep in mind all applicable rules and regulations of NMRC in force. NMRC will be free to take action against the Bidder for violating the same.
- c. The Bidder shall be responsible for all risks involved, liabilities and obligations arising out of this contract under any provisions of law in force from time to time.
- d. The Bidder shall be responsible for proper conduct of its personnel in NMRC's premises. In case of any damage/loss/theft. etc. to the property of NMRC or due to forgery or any damage to the reputation of NMRC which is caused by the personnel deployed by the Bidder, the Bidder will be liable to make good the loss on the basis of the value of the property/damages on account of loss of reputation as determined by NMRC. The same shall be deposited by the Bidder with NMRC or could be recovered from the PBG due to the Bidder.
- e. NMRC shall not be responsible for any financial or other injury to any person deployed by service providing Bidder in the course of their performing the functions/duties, or for payment towards any compensation.
- f. Any change in the constitution of the Bidder will be notified by the Bidder in writing to the Corporation and such changes shall not discharge former office bearer/ member(s)

of the Bidder from any liability under the Contract. No new partner(s)/ member(s) will be accepted in the Bidder in respect of the Contract unless he/she/they agree to abide by all its terms and conditions and submit an agreement to this effect in writing to the Corporation.

- g. The Coordinator shall also be responsible for liaison with all the statutory and public bodies, ensuring timely payment of all dues and applicable taxes to concerned authorities, keeping all the NOC and necessary permits duly validated at all times and initiating prompt action for renewal of the same.

## **6 Special Conditions of Contract (SCC)**

### **6.1 Conditions Governing the Contract**

The special conditions of contract contained herein shall be supplemented to the general conditions of the contract and in event of any conflict or inconsistency between them; Special conditions of the contract will supersede the General conditions of the contract.

### **6.2 Scope for Work**

The work (on turn-key basis) covered in the tender includes Implementation of Audio Video System at NMRC Auditorium and Meeting room - Comprehensive Annual Maintenance Contract (CAMC) for 3 (Three) years after expiry of DLP (Defect Liability Period) of 1 (One) Year from the date of commissioning. However, extension can be given for CAMC on the conditions as decided by NMRC.

- a. Original Equipment Manufacturers (OEM/OEMs) of Audio Video Equipment or its authorized representative must have office in India. The address and contact details shall be submitted for verification.
- b. All software and firmware upgrades for the system as applicable shall be free of cost for a period of four years.
- c. The power supply available at the site shall be 230 V / 50 Hz AC which may vary from 160 Volts to 270 Volts. All modules of the system should work using this power supply only. UPS arrangement to be done by the successful bidder.
- d. All the modules of Audio Video Equipment shall be modular in construction. In case of up-gradation of such modules in future, it shall be possible to upgrade them without replacing the entire product.

### **6.3 Maintenance**

The contractor shall visit the site periodically and maintain the systems, sub-systems and associated equipment with their maintenance engineer for a period of 1 Year (12 Months) of

DLP period from the date of issue of acceptance certificate for the system/sub-system. The services of maintenance engineer shall be available for the period of 1 Year (12 Months) of DLP period as and when required by the NMRC representative. The contractor shall ensure that the NMRC personnel are fully acquainted, trained and familiar with detailed procedure to be followed for proper testing, troubleshooting and satisfactory maintenance of the systems and sub-systems. In this period of maintenance any defect noticed in the design /manufacturing of the systems shall be attended to promptly and take necessary remedial measure, to replace the defective part free of cost and rectify the system design/manufacturing defect. During this period the contractor should deploy the skilled staff for maintaining all the equipment in good working conditions like cleaning of the system, checking log entry in the server and security of the network etc. CAMC works include repair and replacement of defective hardware and software, any future software or firmware up gradation equipment, systems and sub-systems and without any cost of spares.

#### **6.4 Materials**

- a. Materials to be supplied by the contractor for execution of the work are indicated in schedule. The contractor shall take delivery of the materials to NMRC Auditorium and Meeting Room as specified in the NOA. However any other material not specifically mentioned herewith but is required for Implementation of Audio Video System at NMRC Auditorium and Meeting room shall be provided by the bidder at his own cost.
- b. The contractor will, however, have to procure all the tools and plants required for executing the labour portion of the work and before the actual commencement of the work the contractor will satisfy the NMRC that he has procured all the necessary tools plants required of the quality. The contractor shall engage his own labour and supervisor for the execution of the covered in the contract.
- c. The contractor shall supply all the materials as mentioned in schedule and transport the equipment to the work site at his own cost

#### **6.5 Use of Technical Terms and Conditions**

Definition of technical terms and symbols used in circuit shall be as per Indian standard specification and where such specifications are not available; they should be of British standard specifications

#### **6.6 Warranty / Defect Liability Period (DLP)**

The contractor shall warranty that everything to be furnished under this contract shall be free from defects and faults in design, materials, workmanship and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards for goods of the type ordered and in full conformity with the contract specifications and samples, if any and shall if operable, operate properly. This warranty shall commence from the date of issue of

acceptance certificate of the installation. It shall be 1 (One) Year from the date of issue of acceptance certificate. The contractor's liability in respect of any complaints/defect and/or claims shall be limited to the furnished and installation of replacement parts free of any charge or the repair of defective parts only to the extent that such replacement or repairs are attributable to or arise from faulty workmanship of materials or design in the manufacture of the equipment, or wear and tear during normal use, provided that the defects are brought to the notice of the contractor within the warranty period. All replacement and repairs at the NMRC shall call upon the contractor to deliver or perform under this warranty shall be delivered and performed by the contractor promptly and satisfactorily. If the contractor desires, the replaced parts can be taken over by them for disposal as they deem fit within period of one month from the date of replacement. At the expiry of this period, no claim whatsoever shall be on the NMRC.

#### **6.7 During Warranty and AMC**

The contractor has to maintain all necessary spare parts of the equipment supplied to NMRC as spares in Noida/ Greater Noida for immediate replacement during failures at the tenderer's cost to reduce the downtime. The defective parts should be replaced at the earliest in the interest of the contractor to avoid penalty for down time in case of system fails. If the repair is expected to take long time, the contractor must provide a temporary spare from his stock, till they are able to return the original after repairs.

#### **6.8 Tenderer's Drawing and Specification**

Tenderer shall furnish with his tender, technical specifications and pamphlets, drawings or reference for all the equipment to be supplied for the contract.

#### **6.9 Supply to Materials to Specifications**

All the materials and equipment to be supplied and used for execution of work shall be of Industrial grade. The tenderer has to load, unload and transport the same to the worksite at his own cost. No additional amount will be paid by NMRC.

#### **6.10 Inspection of Equipment**

The bidder is required to furnish necessary documents / certificates duly approved by accredited laboratories/ agencies to support the following inspection test undertaken during manufacturing and prior to delivery as mentioned in Technical Specification and in the SCC of the Tender document. The documents /certificates are to be submitted by the bidder in the technical bid. All cost towards inspection will be borne by the bidder.

- a. If the product which arrives at the destination does not meet the requirements of the specification, it will be rejected.

- b. The cost of all tests and/or analysis affected at the manufacturer's or contractor's works shall also be borne by the contractor.

### **6.11 Tenderer's Responsibility**

All costs, damages and expenses which the Noida Metro Rail Corporation may have incurred or suffered and which are recoverable from the contractor under the terms of this contract or the relevant law may, at the discretion of the Noida Metro Rail Corporation be recovered by deducting the requisite amounts from any moneys due and payable or refundable to the contractor on any account whatsoever or by legal proceedings. The Noida Metro Rail Corporation also reserves the right and shall be entitled to retain payments due to the contractor under this contract and to set off the same against all claims whether arising out of this contract or out of any other transaction whatsoever against the contractor.

### **6.12 Acceptance Tests**

- a. Immediately after the completion of the work at site the contractor shall certify and advise the purchaser in writing that the installation is:
  - i. Complete
  - ii. Ready for satisfactory commercial service and
  - iii. Ready to be handed over.
- b. Any component, modules, sub-assemblies or equipment failing during the commissioning test shall be replaced/repared free of cost by tenderer.
- c. NMRC shall issue an Acceptance certificate for successful commissioning of section covering all materials and services after the final acceptance test as per the approved test procedure have been completed and the performance has been found to meet the specifications. NMRC decision in this respect shall be final. The Acceptance Certificate shall be signed by both the parties. The period of maintenance (DLP) of works shall commence from the date of issue of Acceptance Certificate.
- d. After the work has been completed & placed in service and acceptance certificate issued by NMRC, the contractor shall be responsible for proper maintenance supervision of the work for a period of 12 months from the date of commissioning. For this purpose he shall prepare a maintenance plan and make available the services of qualified maintenance engineer stationed at the location approved by NMRC who will guide and supervise the work of maintenance staff. The maintenance engineer of the tenderer will visit the total installation at least once in a month.
- e. During this period of maintenance supervision if any lacuna is noticed in the functioning, as a result of any work, the contractor will rectify the same free of cost. During such rectification if any faulty equipment/modules need replacement or repair,

they shall be provided by the contractor from the set of equipment or modules that the contractor should bring to the site of installation in addition to all the materials to be supplied against this contract.

### **6.13 Comprehensive Annual Maintenance Contract**

The tenderer to ensure CAMC for 03 (Three) years after DLP period of 01 (one) year including Hardware and software consumables, spares etc. However, extension can be given for CAMC on the conditions as decided by NMRC.

### **6.14 Scope of Comprehensive Annual Maintenance Contract**

Preventive Maintenance service ONCE in 3 months (quarter), this will include-

- a. Detailed software check
- b. Detailed hardware check
- c. Analysis of Alarms logs, Event logs and System Performance and taking corrective action.
- d. Corrective Maintenance of the complete System including software for the problem experienced and as reported by NMRC representative including defects, immediate replacement of faulty units of any type. The replacement units shall become the property of the "NMRC".
- e. The NMRC shall inform the contractor through telephone or through writing whenever problem occurs in proper functioning of equipment. The contractor shall confirm by issue of suitable case number regarding the complaint. The contractor must give the telephone number on which the contractor may be contacted during any time of the day ( 24X7 hrs to attend to the complaint )
- f. Maintenance service covered under CAMC. Maximum restoration time shall not exceed 72 hours once all the spares/replacement items are available.
- g. The Audio Video Equipment shall be attended as early as possible from the instant information is given by NMRC representative by Phone /Fax/Email.
- h. Complete hardware and software support to be extended by the contractor.
- i. Carrying out any software changes
- j. A log book will be maintained by the NMRC representatives in which day to day failures and problems notice will be entered and informed to the contractor giving date and time. The contractor's Engineer/ representative has to fill up the log book as per schedule maintenance checkup giving the details as well as corrective measures taken by the contractors engineer with date and time in the informed failure.

- k. Trained and supervisory NMRC staff shall be permitted to minor urgent changes if required for which suitable log will be maintained by NMRC staff.
- l. The firm should specify the name, contact number and address of the service personnel responsible for providing the Comprehensive Annual Maintenance service contract.
- m. In addition to the preventive maintenance, the contractor shall attend break down calls whenever emergency arises and there will be no limit for such calls. All the tools and testing instruments required for checking testing and attending to routine maintenance and breakdowns shall be arranged by the contractor.
- n. All the tools and testing instruments etc. required for checking testing and attending to routine maintenance and breakdowns shall be arranged by the successful bidder.
- o. The contractor's staff will carry the routine spares required for preventive maintenance to ensure minimum down time without any additional cost. In addition to those spares contractor will also arrange other spares if required without any additional charges.
- p. In case of major repairs necessitating removal of the equipment to the contractor's service center, the system or its parts are reinstalled at the owner's premises after repairing the set in working condition.
- q. If the repair time is likely to exceed 24 hrs. then the contractor will provide a standby equipment at contractor's cost.
- r. The contractor shall depute only competent and efficient staff for routine maintenance as well as the break downs.
- s. The Contractor shall furnish to the NMRC the Name, Addresses and Telephone number of the Engineers responsible for the maintenance work. Name and telephone Number of Engineer who can be contacted after office hours and Sunday/Holydays shall also be furnished to the NMRC. Contractor shall provide identification to their Engineers and staff authorized to attend the maintenance work so as to facilitate verification by representative of NMRC.
- t. Communication handed over to the contractor's personal at site / office shall deem to have reached their office.
- u. At the end of each major break down repair, contractor's Engineers should prepare a service report and submit the same to the office of the authorized NMRC person concerned.
- v. The tender shall also certify that the installation is done in accordance with the installation specified by the OEM/OEMs.

- w. Only the engineering/technician trained and certified by the OEM/OEMs shall carry out the installation and commissioning for Equipment.
- x. The contractor will have to arrange all necessary spare parts within 72 hours from the time of reporting of fault.

#### **6.15 GST on CAMC**

GST as per prevailing rates shall be applicable.

#### **6.16 Penalty Clause of CAMC and DLP**

- a. Penalty Clause of CAMC- Fault in machine shall be attended within **24** hours of reporting. The rectification time shall not exceed 72 hours. In case of delay of more than 72 hours, then the contractor will provide a standby equipment at contractors cost otherwise 0.5% of the value of the CAMC per machine will be levied for every 24 hours of delay (after initial rectification time of 72 hours) in rectification of machine during DLP and CAMC period **subject to maximum 5%**. Down time shall be reckoned from the time of intimation of failure to the firm

#### **6.17 Payment on Comprehensive Annual Maintenance Contract**

Payment for half yearly of the total Annual Maintenance Contract value for one year excluding GST shall be made after successful completion of the work for 6 months duly certified by the authorized representative of the NMRC. Payment shall be made on presentation of the following documents:

- a. Certificate of satisfactory Maintenance of each quarter preceding the date of submission of Invoice to be given by the authorized NMRC representative.
- b. Invoice in Triplicate in showing the rate and the period for which CAMC charges are claimed.

#### **6.18 Delivery Period**

**The equipment in full needs to be delivered within 12 (twelve) weeks from the date of NOA.**

#### **6.19 Time for Installation and Commissioning**

1. The equipment needs to be installed and commissioned within a period of 8 weeks from the time the site is made available. Further, care needs to be taken while shifting of the equipment to the sites so that other installations at the site, flooring of the site are not damaged. If any damage to other installations happens, the contractor has to make good of the same or the amount will be deducted from the invoices.



**Following authorizations for this tender shall be made available from the manufacturer by the specialized firm.**

1. Technical compliance to the specifications duly vetted by Manufacturer.
2. Authorization that the items quoted by the tenderer are in production and would be serviceable for at-least 5 years from the date of tender.

**MAF for following equipment's. (As per Form 15 given at appendices)**

- a) Audio System (Microphone, Speaker, Power Amplifier)
- b) PTZ Camera & Switcher
- c) Control & Switching ( Video Switcher, Transmitter, Receiver, Controller, Touch Panel)
- d) LED Video Wall

**All the above criteria documents to be submitted along with the tender by the bidder. The same shall be verified during technical evaluation.**

- e) The scope of all items in AV sub-system is SITC – Supply, Installation, testing & commissioning.
- f) Contractor should have to take all necessary testing/ random testing of equipment's and component prior to supply as per the guidelines / rules / sampling method etc. Respective applicable standards at manufacturing works or other standard lab. Any deviation in parameters which is not as per specification is not accepted and client reserve the rights to reject the same at any stage of the project.
- g) The Makes proposed by bidder should be internationally accepted and reputed brand having after sales support in India. Model / part nos. proposed should be complying with the given specification and requirement in all respect.
- h) As far as possible, the successful tenderer will have to place order directly to the manufacturer OR it's authorized dealer.
- i) For all equipment's that are covered in SITC, the contractor shall transfer all warranties and guaranties from OEM – original equipment manufacturer – to the client. The respective OEMs shall be bound to honor warranty, guaranty and support commitments as per the Bid as committed or accepted by the successful Bidder/Contractor.

- j) The contractor is advised to provide technical datasheets and specification sheets for approval for all items prior to initiating any supply. Any items having deviations, in absence of specific approval from Client / Architect / Consultant shall be returned whether installed or uninstalled at the risk, liability and expense of the Contractor.
- k) The Contractor is advised to inform the Client / Architect / Consultant of any specific requirements for equipment such as Electrical power points, LAN / Internet point etc. before installation so as to incorporate the same at site by other agencies.
- l) The Contractor shall operate in complete cooperation with other agencies and contractors or their sub-contractors to achieve harmony of work and maintaining the overall functionality of each systems and aesthetics.
- m) The contractor is advised to specifically use items only from the make list and provide information on compliance of performance specifications.

#### **6.20 UPS Supply**

The bidder will have to provide UPS of suitable power rating for a back-up of 30 mins. For both the locations (Auditorium and Meeting Room).

Room Locations:-

##### **1.) NMRC Auditorium:**

NMRC Depot, Near Jaitpur Village,  
Sector-34, Greater Noida,  
Gautam Budh Nagar, U.P (201310)

Auditorium is of Seating Capacity of 235 people.

##### **2.) NMRC Meeting Room:**

Block-III, 3<sup>rd</sup> Floor,  
Ganga Shopping Complex,  
District Gautam Budh Nagar,  
Sector-29, Noida (201301)  
Uttar Pradesh, India

Meeting Room is of Seating Capacity of 20 people.

**Note:** *Bidders are informed that all necessary site-survey for Auditorium and Meeting Room needs to be carried out to ascertain the requirement in accordance with BOQ.*

*All risk & cost for carrying out this survey shall be borne by respective bidders.*

**6.21 Training:-**

The successful bidder will have to provide training to NMRC staff to operate & maintain the Audio-Video system for Auditorium & Meeting room. **A training schedule along with training module needs to be submitted.**

**6.22 Customer Support:-**

The successful bidder will have to provide Customer Support/ Maintenance Support to NMRC for a period of 1 (one) year during Defect Liability Period (DLP) and 3 (three) years during Comprehensive Annual Maintenance Contract (CAMC). The successful bidder will have to specify the details such as **Contact Person, Contact Number, e-mail** id etc. in an escalation matrix to NMRC for carrying out breakdown/preventive maintenance for these systems.

**6.23 Termination Clause:-**

At any point of time NMRC will have the right to terminate /cancel the order partially/wholly as it may deem fit so.

**6.24 Penalty Clause:-**

NMRC shall have the right to impose penalty in case of non-performance by successful bidder . Generally all complaints once lodged must be attended within 72 hours from the time of reporting. After which, a penalty of Rs.1000/- per day will be imposed .However urgent situation may require attending complaints within short period of time, which may depend upon circumstances. Contractor will be required to provide such urgent/emergency support as per the need of NMRC.

**6.25 Execution of the project:-**

Project must be executed in the given timeline of 20 (twenty) weeks from the date of acceptance of NOA. Any delay during project execution will attract penalty of .5% per week of the NOA value.

However, during project execution if conditions/circumstances are beyond the control of contractor and affects the project timeline then the bidder has to give a written letter indicating above conditions to seek extension of project timeline.

## 7 Technical Specifications

<b>TECHNICAL SPECIFICATION - AUDITORIUM</b>			
<b>S.No.</b>	<b>Parameter</b>	<b>Description</b>	<b>Compliance</b>
<b>1</b>	<b>12" to 15" two way full range speaker</b>		<b>(Yes/No)</b>
	loudspeaker system	2-way	
	woofer size	12 inch - 15 inch	
	tweeter size	1.4 inch	
	low impedance dynamic power	700 watts	
	low impedance RMS power	350 watts	
	impedance (ohms)	8	
	opening angle	90°H x 70°V	
	SPL 1W/1m	98 dB	
	max SPL 1m	127 dB	
	frequency response	48 - 22K Hz	
	IP rating	40	
	main construction material	wood	
	Control Port	RJ-45 LAN	
	Closest RAL colour	RAL9003 (W) / RAL9011 (BL)	
	Grille main material	steel	
	Rigging flying points	14 x M10	
<b>2</b>	<b>Powerful passive dual 10" to 15" subwoofer</b>		
	Loudspeaker system	dual coil	
	woofer size	2 x 10 inch to 15"	
	low impedance dynamic power	600 watts	
	low impedance RMS power	300 watts	
	impedance (ohms)	4 or 16	
	max SPL 1m	133 dB	
	main construction material	plywood	
	low impedance dynamic power	600 watts	
	SPL 1W/1m	99 dB	
	frequency response	45 - 150 Hz	
	Closest RAL colour	RAL9003 (W) / RAL9011 (BL)	
	main construction material	plywood	
	woofer cone material	Paper	
	IP rating	20	
<b>3</b>	<b>8" to 10" two way full range speaker</b>		
	woofer size	8 inch - 10 inch	
	tweeter size	1 inch	

	impedance (ohms)	8		
	low impedance dynamic power	300 watt		
	low impedance RMS power	200 watts		
	max SPL 1m	112 dB		
	main construction material	mdf wood		
	IP rating	40		
	Vertical dispersion angle 1000 Hz	160°		
	woofer cone material	paper		
	mounting system	U-bracket		
	low impedance dynamic power	300 watts		
	SPL 1W/1m	90 dB		
	frequency response	50 - 25K Hz		
	grille main material	steel		
	Horizontal dispersion angle 1000 Hz	150°		
4	<b>30watt wall mount speaker</b>			
	loudspeaker system	2-way		
	woofer cone material	polypropylene		
	mounting system	U-bracket		
	low impedance RMS power	2 x 15 watts		
	max SPL 1m	101 dB		
	main construction material	ABS plastic		
	IP rating	40		
	Horizontal dispersion angle 1000 Hz	180°		
	woofer size	5,25 inch		
	tweeter size	1 inch		
	low impedance dynamic power	2 x 30 watts		
	SPL 1W/1m	86 dB		
	frequency response	45 - 20K Hz		
	grille main material	steel		
	active	Yes		
	Vertical dispersion angle 1000 Hz	180°		
5	<b>8-channel bridgeable class D power amplifier</b>			
	dynamic output power 4 ohms	8 x 350 watts		
	dynamic output power 8 ohms	8 x 175 watts		
	dynamic output power bridged 8 ohms	4 x 650 watts		
	RMS output power 4 ohms	8 x 250 watts		
	RMS output power 8 ohms	8 x 125 watts		
	output power RMS bridged 8 ohms	4 x 500 watts		
	Balanced line input	8 Nos.		

	Input Sensitivity	0 dB		
	S/N Ratio	>100 dB		
	THD	<0.5%		
	power supply technology	switching mode power supply		
	channel separation	> 60 dB @ 1 kHz		
	power amp topology	class-D		
	Protection	over current, over temperature		
6	<b>Digital Wireless Gooseneck Microphone</b>			
	<b>System Specification</b>			
	AF frequency response	20 to 20,000 Hz		
	Dynamic range	> 120 dB(A)		
	THD, total harmonic distortion	0.1 % or better		
	Audio sampling	24 bit/48 kHz		
	Signal-to-noise ratio	> 90 dB(A)		
	Encryption	AES 256		
	RF frequency ranges (Bandwidth)	1.9 GHz		
	Latency	19 ms		
	RF output power	up to 250 mW		
	Display	front LCD		
	Channels	18		
	<b>Transmitter Specifications</b>			
	AF Frequency response	75 to 20,000 Hz		
	Power supply	2 x AA size battery (1.5 V)		
	Operating time	typ. 15 h		
	Display	LCD		
	Mute switch	available		
	Remote controllable	Yes		
	Sensitivity	-1 dBV/Pa		
	Control & monitoring	LAN Port		
	Polar Pattern	Cardioid / Super cardioid		
	Features	Automatic frequency management and Automatic Audio level Management		
7	<b>Drum Kit</b>			
	<b>1 No. cardioid instrument microphone for bass drums</b>			
	Frequency response	20 - 16000 Hz		
	Sensitivity in free field	0,9 mV/Pa		
	Transducer principle (Microphone)	dynamic		
	Pick-up pattern	cardioid		

	Nominal impedance	350 Ω		
	Min. terminating impedance	1000 Ω		
	Connector	XLR-3		
	<b>4 Nos. cardioid microphone for snare and tom-tom</b>			
	Frequency response	40 - 18000 Hz		
	Sensitivity in free field	1.8 mV/Pa		
	Transducer principle (Microphone)	dynamic		
	Pick-up pattern	cardioid		
	Nominal impedance	350 Ω		
	Min. terminating impedance	1000 Ω		
	Connector	XLR-3		
	<b>2 Nos.super-cardioid microphone for cymbal and overhead</b>			
	Frequency response	40 - 20000 Hz		
	Sensitivity in free field	3 mV/Pa		
	Transducer principle (Microphone)	pre-polarised condenser microphone		
	Pick-up pattern	super-cardioid		
	Max. sound pressure level	139 dB/SPL		
	Nominal impedance	50 Ω		
	Min. terminating impedance	1000 Ω		
	Connector	XLR-3		
8	<b>Digital Wireless Handheld Microphone</b>			
	<b>System Specification</b>			
	AF frequency response	20 to 20,000 Hz		
	Dynamic range	> 120 dB(A)		
	THD, total harmonic distortion	0.1 % or better		
	Audio sampling	24 bit/48 kHz		
	Signal-to-noise ratio	> 90 dB(A)		
	Encryption	AES 256		
	RF frequency ranges	1.9 GHz		
	Latency	19 ms		
	Display	front LCD		
	Channels	18		
	<b>Transmitter Specifications</b>			
	RF output power	up to 250 mW		
	AF Frequency response	50 to 20,000 Hz		
	Power supply	2 x AA size battery (1.5 V)		
	Operating time	typ. 15 h		
	Display	LCD		



	Mute switch	available		
	Remote controllable	Yes		
	Control & monitoring	LAN Port		
	Polar Pattern	Cardioid / Super cardioid		
	Features	Automatic frequency management and Automatic Audio level Management		
9	<b>Digital Wireless Lapel Microphone</b>			
	<b>System Specification</b>			
	AF frequency response	20 to 20,000 Hz		
	Dynamic range	> 120 dB(A)		
	THD, total harmonic distortion	0.1 % or better		
	Audio sampling	24 bit/48 kHz		
	Signal-to-noise ratio	> 90 dB(A)		
	Encryption	AES 256		
	RF frequency ranges	1.9 GHz		
	Latency	19 ms		
	Display	front LCD		
	Channels	18		
	<b>Receiver Specifications</b>			
	RF sensitivity	< -90 dBm		
	Audio effects	Equalizer: 7-band graphic equalizer with sound presets Sound Profiles: female voice, male voice, instrument/ media		
	Display	OLED		
	RF output power	up to 250 mW		
	Network sockets	RJ-45		
	Features	Automatic frequency management and Automatic Audio level Management		
	<b>Bodypack Transmitter</b>			
	AF Frequency response	50 to 20,000 Hz (Mic) 20 to 20,000 Hz (Line)		
	Power supply	2 x AA size battery (1.5 V)		
	Operating time	typ. 15 h		
	Control & monitoring	LAN Port		
	<b>Microphone</b>			
	Microphone	pre-polarized condenser microphone		
	Sensitivity	5 mV/Pa		
	Pick-up pattern	omni-directional		
	Max. SPL	142 dB SPL		

10	<b>Digital Wireless Headmic Microphone</b>			
	<b>System Specification</b>			
	AF frequency response	20 to 20,000 Hz		
	Dynamic range	> 120 dB(A)		
	THD, total harmonic distortion	0.1 % or better		
	Audio sampling	24 bit/48 kHz		
	Signal-to-noise ratio	> 90 dB(A)		
	Encryption	AES 256		
	RF frequency ranges	1.9 GHz		
	Latency	19 ms		
	Display	front LCD		
	Channels	18		
	<b>Receiver Specifications</b>			
	RF sensitivity	< -90 dBm		
	Audio effects	Equalizer: 7-band graphic equalizer with sound presets Sound Profiles: female voice, male voice, instrument/ media		
	Display	OLED		
	RF output power	up to 250 mW		
	Network sockets	RJ-45		
	Features	Automatic frequency management and Automatic Audio level Management		
	<b>Bodypack Transmitter</b>			
	AF Frequency response	50 to 20,000 Hz (Mic) 20 to 20,000 Hz (Line)		
	Power supply	2 x AA size battery (1.5 V)		
	Operating time	typ. 15 h		
	<b>Microphone</b>			
	Microphone	pre-polarized condenser microphone		
	Sensitivity	5 mV/Pa		
	Pick-up pattern	omni-directional		
	Max. SPL	142 dB SPL		
11	<b>Dante Interface</b>			
	Input Ports:	4 XLR balanced and RF filtered mic/line inputs		
	Gain	0 dB, +15 dB, +30 dB, +45 dB, software selectable		
	Input impedance	> 1.8 K $\Omega$		
	Frequency response	20 Hz - 20 kHz		
	System THD+N	< 0.02 %		
	Physical level	Standard Ethernet		

	Connector	Single RJ-45		
	Cable quality	CAT-5		
	Transmission speed	100 Mbps		
12	<b>Digital Signal Processor</b>			
	Number of Min Channels	Min 12 with AEC mic/line or better		
	Outputs	12 line or better		
	Frequency response:	20-20,000 Hz		
	THD+N:	0.005%		
	Crosstalk	<-110 dB		
	Dynamic Range	109 dB		
	Latency	20 ms		
	Convergence Rate:	40 dB/second		
	Tail Length:	300 ms		
	Total Cancellation:	>65 dB		
	Connectors	RS-232, LAN: RJ45 , CLINK2		
	Telephone Interface	Single and dual-line PSTN cards		
13	<b>48 channel mixer</b>			
	Full Processing Matrix	10 x 8		
	Inputs / Outputs	32 mic line inputs, 12 analogue outs, 2 AES I/O (mono), 16 Flexi Aux / Sub-Group Busses, 1 GPI and 1 GPO, LR Master Bus		
	Flex Channels	48 x Input flex-channels Mono/Stereo (equivalent of 96 DSP channels)		
	Buses	46 busses: 16 x flexi-busses Mono/Stereo (equivalent of 32 DSP busses), Stereo Master (2), Solo busses (2 stereo, 4 total)		
	Multiband Compressors	4 Assignable		
	FX and Control Groups	8 Digital FX, 10 x Control Groups		
	Assignable Graphic Equalizers	16		
	Sample Rate	96kHz		
	Networking connections	2 Ethernet		
	multi-touch screens	2 Nos.		
	touch sensitive moving faders	21		
	Input flex-channels Mono/Stereo	40		
	A>D & D>A	24-bit Converter Bit Depth		
	Processing Delay	2ms Typical @ 48k		
	Channel Separation	> 90dB		
	Frequency Response	20Hz – 20kHz		
	THD	<0.05%		

	Maximum Output Level	+22dBu		
	Maximum Input Level	+22dBu		
	Faders	100mm Motorised Fader $\infty$ to +10dB		
14	<b>Ceiling Microphone</b>			
	Microphone type	Pre-polarized condenser microphone		
	Microphone capsules	28		
	Pick-up pattern	Beam pattern		
	Max. sound pressure level	104 dB SPL		
	Audio output	1 x 3-pin terminals, 2 x Digital Dante Network Audio (RJ45)		
	Dynamic Range	93 dB		
	AF frequency response	160 Hz - 18,000 Hz		
	Sensitivity	0 dBV/Pa (988 mV/Pa)		
	Signal-to-noise ratio	83 dB (A)		
	Latency	4 ms		
	Equivalent noise level	11 dB (A)		
15	<b>Modular Matrix Switcher</b>			
	Resolution	4K60 4:4:4 HDR		
	Input Ports	6x HDMI, 1 x HDBT		
	Output Ports	8 x HDMI		
	Distance	Distributes Full HD 1080p, Ultra HD, and 4K signals over CAT type twisted pair cable at distances up to 330 ft (100 m).		
	Audio embedding & audio de-embedding	Built-in		
	Backplane data rate	12.5 gbps		
	LAN Port	Built-in		
	Authentication	802.1X		
	Features	EDID resolution management, CEC signal management, USB signal routing, Auto-Locking technology achieves rapid switching between disparate sources		
	Straming protocol	H.264		
	HDCP Compliant	HDCP 2.2		
	Audio embedding & audio de-embedding	Built-in		
16	<b>Control Processor</b>			

	Communication Ports	3 X RS-232		
	IR Ports	8 x IR, IR Port should be able to handle 1-way serial TTL/RS-232 (0-5 Volts) up to 115.2k baud		
	Relay Ports	8 x Relay, Relay Port should be Rated minimum 1 Amp, 30 Volts AC/DC		
	I/O Ports	8 x I/O Ports		
	Control Port	Ethernet		
	Memory	Onboard 512MB RAM & 4GB Flash memory, Expandable storage up to 1TB		
	USB port	High-speed USB 2.0 host port		
	Features	SNMP remote management support		
	Control app support	iPhone, iPad, and Android		
	Network security protocol	TLS, SSL, SSH, and SFTP		
17	<b>Wireless Presenter</b>			
	Resolution	Full HD 1080p and UXGA/WUXGA		
	Compatibility	Compatible with Windows, OS X, Apple iOS, and Android		
	Input Ports	1 x HDMI, 1 x LAN, 1 x audio		
	Output Ports	1 x HDMI		
	Compatibility	Compatible with Windows, OS X, Apple iOS, and Android		
	Data Rate	30 fps		
	Control Ports	CEC, IR, or RS-232		
	Features	HDCP compliant,		
	Ethernet	High-speed 10/100 Ethernet LAN port		
	Power	PoE or AC line powered		
	Control app support	Compatible with Windows, macOS, Android, and Apple iOS® devices		
18	<b>4K Multiformat Transmitter</b>			
	Input Ports	2 x HDMI, 1 x VGA, 1 x audio ports, 3 x 1 auto switching		
	Output Port	1 x HDBT		
	Cable length	Supports cable lengths up to 330 ft (100 m) for 1080p, WUXGA, and 2K using CAT5e cable		
	Control Port	Ethernet		
	HDCP	HDCP 2.2 compliant		
	Audio Formats	Should handles Dolby TrueHD, Dolby Atmos, DTS-HD, and uncompressed 7.1 linear PCM audio		

	Features	EDID and CEC compatible		
19	<b>4K HDMI Receiver</b>			
	Input Ports	1 x HDBT		
	Output Port	1 x HDMI		
	Cable length	Supports cable lengths up to 330 ft (100 m) for 1080p, WUXGA, and 2K using CAT5e cable		
	Control Port	Ethernet, IR, RS-232		
	HDCP	HDCP 2.2 compliant		
	Audio Formats	Should handles Dolby TrueHD, Dolby Atmos, DTS-HD, and uncompressed 7.1 linear PCM audio		
	Features	EDID and CEC compatible		
20	<b>4K HDMI Transmitter</b>			
	Input Ports	1 x HDMI		
	Output Port	1 x HDBT		
	Cable length	Supports cable lengths up to 330 ft (100 m) for 1080p, WUXGA, and 2K using CAT5e cable		
	Control Port	Ethernet		
	HDCP	HDCP 2.2 compliant		
	Audio Formats	Should handles Dolby TrueHD, Dolby Atmos, DTS-HD, and uncompressed 7.1 linear PCM audio		
	Features	EDID and CEC compatible		
21	<b>Distribution amplifier</b>			
	Input	1 x HDMI		
	Output	4 x HDMI		
	Audio formats	Should handles Dolby TrueHD, Dolby Atmos, DTS-HD, and uncompressed 7.1 linear PCM audio, 3D video and deep color		
	HDCP	HDCP compliant		
22	<b>10" Touch Panel</b>			
	Display Type	TFT Active Matrix Color LCD / LED		
	Size	10 inch diagonal or more		
	Aspect Ratio	16:10		
	Resolution	1280x800 or more		
	Brightness	400 cd/m2 or better		
	Contrast ratio	950:1 or better		
	Color Depth	16.7M colors		

	Viewing Angle	±80° horizontal, ±80° vertical or better		
	Features	Should have built-in camera, microphone and speaker		
	Touch Screen	Projected capacitive, 5-point multi-touch capable		
	Camera Resolution	5.0 MP		
	Video Format	H.264 (MPEG-4 part 10 AVC)		
	Accessories	Table top docking station for above panel		
23	<b>Podium with 22" interactive monitor and Desktop PC</b>			
	Podium Body	Material Manufactured using premium quality		
	Style Modular cabinet accommodating	Style Modular cabinet accommodating multi-media audio-video gadgets		
	Slides Upper Slide	Monitor protection and stand for a notebook		
	Drawer	For Scanner/Visualiser.		
	Movable soft wheels	Mobility with convenience		
	<b>Touch / tablet monitor</b>			
	Display	IPS TFT Display		
	Surface	Tempered anti-glare etched glass		
	Screen diagonal	21.5 inches		
	Aspect ratio	16:09		
	Resolution	1920 x 1080 pixels		
	Viewing angle (H/V)	178° (89/89) / 178° (89/89) (typ)		
	Colors	16.7 million		
	Brightness	210 cd/m2 (typ)		
	Contrast ratio	900:1		
	Technology	Electromagnetic Resonance (EMR)		
	Pen pressure levels	1024		
	Interface ports	2 x USB, 1 x DVI / 1 x VGA		
	HDCP	HDCP Compliant		
24	<b>Document Camera</b>			
	Resolution	Full HD, 1080p output resolution with 30fps		
	Zoom	20x, Digital Zoom: 12x		
	Image Sensor	1/3 CMOS Color Image Sensor		
	Signal to Noise ratio	51 dB		
	Video/Audio Recording	One-touch records image and sound synchronously		
	Built-in Microphone	Yes		
	Image Rotation	0°, 180°, flip, mirror		

	Storage capability	Compatible with USB flash drives, expandable to 4TB		
	Interface	VGA input/output, HDMI input/output		
	Features	Built-in microphone, Annotation without PC		
25	<b>PTZ Camera</b>			
	Resolution	Full HD		
	Image Sensor	1/2.8" type progressive scan CMOS sensor		
	Effective Pixels	2.14 Mega pixels		
	S/N Ratio	50dB		
	Zoom Ratio	30x Optical zoom		
	Panning/Tilting Range	Pan: 270°, Tilt: +90° to -20°		
	Panning/Tilting Speed Manual:	1~150°/Sec, Swing: 1~150°/Sec		
	Preset	50 Position		
	Field of View	63.7° (WIDE END) x 2.3° (TELE END)		
	Video Output	1 x 3G-SDI, 1 x HDMI, 1 x CVBS		
	Protocol	VISCA, DVIP		
	Control	Ip / Rs-422, IR		
26	<b>Camera Multiviewer, Recorder &amp; Streaming System.</b>			
	Channel	6 channel		
	Display	17.3" HD TFT LED backlit, 1600x900 pix		
	Resolution	HD resolution 1080i @ 60Hz		
	Video Input	4x HD-SDI, 2x HDMI		
	Video output	3x HDMI + 2x SDI assignable: AUX 1-6, PGM, PVW, PGM Clean or multiview		
	Audio input	2x Balanced XLR		
	Audio output	1x Stereo headphone		
	Built-in Audio Mixer	selectable audio follow video master gain control		
	Streaming Video Encode	H.264 / AVC, Main/ High Profile Configurable Bit-rate up to 10Mbps		
	Streaming Audio Encode	AAC-LC Configurable bit rate range from 32Kbps to 384Kbps Sample rate: 48KHz, 16bit		



	Streaming Protocol	TS over TCP/UDP (unicast & multicast) RTSP over HTTP/TCP/UDP (RTSP Elementary Streaming) RTMP (Publish)		
	Streaming Control	Web browser UI for configuration and control Socket commands		
	Recording file system	FAT, exFAT, NTFS		
	Recording file format	MP4		
27	<b>Fine Pitch Indoor LED Video Wall</b>			
	Video Wall Size	2.0 Mtr x width of 3.6 Mtr size or higher as per tile size of each OEM		
	Pixel Pitch	1.89 mm or lesser (Lower pitch is regarded as better)		
	LED Configuration	3-in-1 Black SMD		
	Brightness	600 nits		
	Brightness Uniformity	97%		
	Color uniformity	97%		
	Color processing	16 bits		
	Contrast ratio	7000:1		
	Viewing angle, horizontal	160°		
	Viewing angle, vertical	140°		
	Pixel Density	279947/sq m   26008/sq ft		
	LEDs per cabinet	57600		
	Cabinet resolution	320 x 180		
	flatness	0.5 mm		
	LED's per module	14400		
	Cabinet Video input type	1x DVI, 1x HDMI, HDCP Compliant		
	Mounting System	LED display cabinet must come standard with its own mounting system, designed exclusively for the LED video wall product.		
	Installation and service	Front and Rear, All replaceable LED video wall components including cabinets, modules, components, and cables must be accessible and replaceable from the front of the wall with no need for rear access, and no need to remove or move good panels.		
	Protection	Meet or exceed IP30 protection standard.		
	Run time duty Cycle	The LED and LED display cabinet must be designed for 24/7 extended operation.		

	HDCP Compliance	The display must be HDCP compatible and be capable of passing the licensing key to other displays in the array when looping the signal through (daisy-chaining).		
	Accessories	The Video wall should be supplied Along with controllers, Power Distribution unit with surge protection of the same OEM		
27	<b>65-inch 4K LED Display</b>			
	Resolution	3,840 x 2,160 (4K UHD)		
	Screen Size	65" Diagonal		
	Brightness	400 nits (cd/m2)		
	LED lifespan	50,000 hours to 50% brightness		
	Pixel pitch	0.372 x 0.372mm		
	Contrast ratio (full field)	1200:1 typical		
	Refresh rate	60Hz		
	Response time	8ms typical		
	Display colors	10 bit, 1.07 billion colors		
	Video inputs	2 x HDMI, 1 x DisplayPort, 1 x VGA, 1 x YPbPr, 2 x USB 2.0, USB 3.0		
	Video output	1 x Display port, 1 x HDMI		
	Control Ports	1 x RS-232, 1 x IR, 1 x LAN		
	Features	OPS slot, Anti-glare treatment, 2 x 8W speakers, On/off scheduler, USB playback of Photo/Video/MP3, Kensington lock, miracast, wi-fi		
28	<b>55-inch 4K LED Display</b>			
	Resolution	3,840 x 2,160 (4K UHD)		
	Screen Size	55"/139.7cm		
	Brightness	400 nits (cd/m2)		
	LED lifespan	50,000 hours to 50% brightness		
	Pixel pitch	0.315 x 0.315mm		
	Contrast ratio (full field)	1200:1 typical		
	Refresh rate	60Hz		
	Response time	8ms typical		
	Display colors	10 bit, 1.07 billion colors		
	Video inputs	2 x HDMI, 1 x DisplayPort, 1 x VGA, 1 x YPbPr, 2 x USB 2.0, USB 3.0		
	Video output	1 x Display port, 1 x HDMI		
	Control Ports	1 x RS-232, 1 x IR, 1 x LAN		

	Features	OPS slot, Anti-glare treatment, 2 x 8W speakers, On/off scheduler, USB playback of Photo/Video/MP3, Kensington lock, miracast, wi-fi		
29	<b>LED Par with 7 x 12-Watt (6-IN-1 HEX) LEDs</b>			
	IP65 outdoor rated LED Par with 7 x 12-Watt (6-IN-1 HEX) LEDs. With a 30-degree beam angle, users may produce wide washes with smooth color mixing from 63 built-in color macros utilizing red, green, blue, amber, white and UV LEDs. Not only is this LED Par great for lighting indoor stages and venues, but with IP 65 rating, it is a great solution for temporary outdoor lighting of stages or events. The IP 65 rating helps protect the fixture from rain, snow and dust.			
30	<b>120W High Powered RGBW 4-in1 COB LED source</b>			
	Led profile Pro Ellipsoidal with a 120W High Powered RGBW 4-in1 COB LED source 7 Operating Modes: RGBW Dimmer Mode, Color Change Mode, Color Fade Mode, Auto Run Mode, Static Color Mode, Sound Active Mode, & DMX Controlled Stand Alone Setup or Master-Slave Setup 5 DMX Channel Modes: 4/5/6/10/11 64 Static Colors 4 Gobos included(Gobo Size : 63,5mm/visible 51,25mm , max thickness 2mm) 5 Dimmer Modes Typical Throw: 40 meter (12°) to 28 meter (30°) Strobing 0-100% Dimming Control Manual focusing Manual Zoom Manual Framing Shutters Fan Cooled			
31	<b>LED Blinder 4 x 4 COB LED high output Wash/Blinder Matrix panel</b>			
	LED Blinder 4 x 4 COB LED high output Wash/Blinder Matrix panel- COB Technology (Chip On Board) produces powerful, smooth RGB color mixing with rich palettes of color- Use as Wash/Blinder or Pixel Mapped matrix for a stunning visual effect- Great for Stage Lighting, Bands or Night Clubs- 5 DMX channel modes: 3, 6, 7, 48 & 52 channel- Individual Pixel controllable in 48 & 52 channel DMX modes- 4x Pixel Flip options changes pixel orientation - 4x Operational modes: Auto, Sound Active, Manual RGB Dimmer, Static Color, and DMX-512- RDM Compliant (Remote Device Management)- Built-In preset colors and programs- Flicker Free operation (No flickering on camera)- LED pulse and strobe effect- Electronic Dimming: 0 - 100%- 5 selectable Dim Curves (Standard, Stage, TV, Architectural & Theatre)- 60-degree beam angle- 3 & 5-pin XLR chassis mount connectors for DMX linking- PowerCon AC IN/OUT to daisy chain power (up to 5 Dotz Matrix's @ 120V and 9 Dotz Matrix's @ 230V on one 20 amp circuit )- Power Draw: 480W total (All LED's @ Full)- 4-button DMX LCD display - Single yoke allows fixture to be mounted - Fan Cooled- Light Source: 16x 30-Watt COB TRI LEDs (RGB: 3 in 1)- Auto sensing power supply: AC 100V/60Hz - 240V/50Hz			
32	<b>Led Fresnel lighting fixture</b>			

	Led Fresnel lighting fixture is equipped with an 8-inch Fresnel lens and powered by a 130W LED engine. It produces a white wide, soft-edged beam for stage and theatre use at 3000K. It comes with barn doors to adjust the beam dispersion and a manual knob to change the beam angle from 8 to 50 degrees. Fixture has a 4-button LCD operational menu, 3-pin and 5-pin DMX In/Out and powerCON In/Out to daisy chain the power from one fixture to another.		
33	<b>LED Par 64 Optical</b>		
	LED Par 64 Optical:• 100 Watt COB Warm White LED (3000K)• Life expectancy: rated at 50,000 hrs. • LUX: 7135 (9°); 4440 (15°); 2236 (20°); 1266 (25°); 812 (30°)• CRI: 90• Beam angle: 9, 15, 20, 25 Or 30-degree (manual adjustment) • PWM frequency:1200Hz Connection:• DMX: 5-pin DMX In/Out • powerCON In/Out to daisy chain fixture Control:• Control protocol: DMX-51• 4 DMX Channel Modes: 1/2/3 or 4 channels • RDM protocol support Features:• 4-button DMX menu display on rear panel • Adjustable latch to manually change beam angle • Includes gel frame for diffusion filters (Diffusion filter sold separately) • Strobe effect (25Hz max) • Flicker Free Operation• Electronic Dimming: 0 - 100% with 6 dimming curves • Run all night – No duty cycle • Silver polished aluminum exterior housing Electrical:• Power Draw Total (All LED's @ Full On): 115W, 0.964A @ 120V/60Hz, 112W, 0.5A @ 220V/50H • Multi-voltage operation: AC 100-240V, 50/60Hz • Daisy chain: 15 fixtures (120V); 25 fixtures (230V).		
34	<b>CMY LED Moving head Light Source</b>		
	CMY LED Moving head Light Source:• 300W Cool White LED Engine • 50,000 Hour Average LED Life• 229000 lux @ 2m (8°)Color:• Color Wheel: 9 + Open (Including: CTO 3200K & UV) • Full CMY Color Mixing GOBOS: • GOBO Wheel 1: 8 Fixed + Open (1 Beam Reducers Beam Mode)• GOBO Wheel 2: 6 Rotating/Replaceable + Open (Size: 26.8mm; Viewable: 20mm)• Modular design for easy servicing and GOBO replacement Effects:• Zoom Range: 8 ~ 46-degrees• Iris: Motorized 5-100%• Focus: Motorized• Frost effect• Prism 1: Rotating 3-facet Circular • Prism 2: Rotating 6-facet Linear Rotating• Prism Layering Connections:• Power Input: powerCON • Power Pass through: powerCON @120V or 220V• USB firmware update portControl:• Built-in WiFLY EXR wireless DMX (up to 2500 ft. / 700M line of sight)• Control Channels: 21, 24 or 26• DMX Modes: 3• Control: 3-pin and 5-pin DMX• Full color display menu• Pan / Tilt Correction: Automatic• Pan / Tilt Lock • Pan / Tilt Range: 540° / 270°• Fine Tilt• Pan/Tilt Speed: Fast to Slow• Dimming & Fine Dimming: ElectronicElectrical• Input Voltage: 100-240V 50Hz/60Hz (Auto Sensing)• Daisy chain max: 3 fixtures (@120V); 7 fixtures (@230V)• Power Draw: 398W (3.31A @ 120V; 1.8A @ 220V)		
35	<b>LED Moving head Light Source</b>		

	LED Moving head Light Source:• 300W Cool White LED Engine • 50,000 Hour Average LED Life• 229000 lux @ 2m (8°)Color:•olor Wheel 2: 7+ Open (CTO 3200k), CTC (5600k), UV • GOBO Wheel 1: 8 Fixed + Open (1 Beam Reducers Beam Mode)• GOBO Wheel 2: 6 Rotating/Replaceable + Open (Size: 26.8mm; Viewable: 20mm)• Modular design for easy servicing and GOBO replacement Effects:• Zoom Range: 8 ~ 26-degrees• Iris: Motorized 5-100%• Focus: Motorized• Frost effect• Prism 1: Rotating 3-facet Circular • Prism 2: Rotating 6-facet Linear Rotating• Prism Layering Connections:• Power Input: powerCON • Power Pass through: powerCON @120V or 220V• USB firmware update portControl:• Built-in WiFLY EXR wireless DMX (up to 2500 ft. / 700M line of sight)• Control Channels: 21, 24 or 26• DMX Modes: 3• Control: 3-pin and 5-pin DMX• Full color display menu• Pan / Tilt Correction: Automatic• Pan / Tilt Lock • Pan / Tilt Range: 540° / 270°• Fine Tilt• Pan/Tilt Speed: Fast to Slow• Dimming & Fine Dimming: ElectronicElectrical• Input Voltage: 100-240V 50Hz/60Hz (Auto Sensing)• Daisy chain max: 3 fixtures (@120V); 7 fixtures (@230V)• Power Draw: 398W (3.31A @ 120V; 1.8A @ 220V)		
36	<b>Led Moving head wash</b>		
	Led Moving head wash • 380W Moving Head Wash fixture• 19x Osram 20W RGBW (4-IN-1) LEDs• Motorized Zoom: 10 ~ 60-degree • Control: DMX-512 & RDM• Multiple DMX Channel Modes• 16-bit dimming with preset dim modes and user definable dim speeds via DMX• Seetronic locking power In/Out to daisy chain power• 3-pin & 5-pin In/Out DMX Connections• 5 zones of LED ring control• Smooth 0-100% Dimming• USB Input for Updating Fixture Firmware• Various Strobe speeds (1-40Hz) • Multi-voltage operation: 110-240V, 50-60Hz		
37	<b>Light Point Wiring</b>		
	Light Point Wiring from dimmer / existing DB to be provided near stage to various stage light fixtures with 2.5 Sq.mm 3 Core PVC Insulated and PVC Sheathed Cable including Cable Tray of suitable size for laying these wires on the tray including 20 amps metallic clad sockets for Halogen Points & 15 Amp 3 Pin Socket for LED Points with box & plug top etc. as required. ISI Mark		
38	<b>6-way DMX Splitter/Booster</b>		
	6-way DMX Splitter/Booster- Can be mounted directly - 1 x 3-pin DMX In/Out on the Front- 6 x 3-pin DMX Out on the rear side- IEC power connector- On/Off Switch protocol,Control Signal input: 5 pin XLR female, etc		
39	<b>Compact lighting console</b>		

The compact lighting console designed for small to medium sized productions up to 4,096 control channels. The Console available in multiple languages and provides onboard Help and Direct Hints to guide a new user to operate the console to its full potential. Simply Patch and Go, with no additional setup required. A full range of clever programming and playback features provide intuitive access to advanced functionality. Access to generic fixture functions is via a Smart Dialogue and Store Look functionality ensures you can control and record PHYSICAL SPECS:- Operating voltage/ Supply voltage: 120/230V, 50/60Hz (automatic detection), Power: 100VA, Input connectors: 1 x etherCON (dot2-Net, sACN, Artnet), 1 x XLR 5pin (DMX), 1 x XLR 3pin (SMPTE), 1 x DIN (MIDI), 1 x Sub-D 15pol (Analogue Remote), 1 x IEC 60320 C13/C14 (IEC cord), Output connectors: 4 x XLR 5pin (DMX), 3 x USB, 1 x DVI-D, 1 x DIN (MIDI), 1 x XLR 4pin (Desk lamp), Dimensions: 427 x 736 x 161mm / 16.8 x 29 x 6.4inch.

### TECHNICAL SPECIFICATION - CONFERENCE ROOM

S.No.	Parameter		Description	Compliance	
				(Yes/No)	
1	<b>Digital Wireless Boundary layer Microphone</b>				
	Frequency response		40 to 20,000 Hz		
	Channels		18		
	THD, total harmonic distortion		typ. 0.1 %		
	Pick-up pattern		Cardioid		
	Microphone sensitivity		10 mV / PA		
	Signal-to-noise ratio		> 90 dB(A)		
	RF output power		adaptive, up to 250 mW or better		
	Operating time		Battery pack: typ. 15 h		
	Dynamic range		< 100 dB(A)		
	Frequency range		1.9 GHz		
	Sampling rates		24 bit/48 kHz		
	AEC Encryption		256 bit		
	Control Port		RJ-45 LAN		
	Features		Automatic frequency management and Automatic Audio level Management		
2	<b>Digital Wireless Handheld Microphone</b>				
	<b>Receiver Specification</b>				
	Frequency range		520 - 558 MHz, 925 - 937,5 MHz, 606 - 678 MHz, 558 - 626 MHz, 626 - 698 MHz, 718 - 790 MHz, 470 - 558 MHz, 558 - 608 MHz		
	THD, total harmonic distortion		≤ 0.9 %		
	RF output power		50 mW		
	Switching bandwidth		up to 88 MHz		
	Signal-to-noise ratio		≥ 115 dBA		

	Modulation	Wideband FM		
	Adjacent channel rejection	Typically $\geq 75$ dB		
	Intermodulation attenuation	Typically $\geq 70$ dB		
	Receiving frequency	3520 receiving frequencies		
	Channels	30 Channels		
	RF sensitivity	$< 2.5 \mu\text{V}$ for 52 dBA eff S/N		
	Receiver Principle	True diversity		
	Blocking	$\geq 75$ dB		
	Display	OLED display for full control		
	Features	Ethernet connection for Wireless Systems Manager (WSM) control software for advanced frequency coordination in multi-channel setups		
	<b>Transmitter Specifications</b>			
	RF output power	50 mW, adjustable in three steps 10/30/50		
	AF Frequency response	80 – 18,000 Hz		
	Power supply	2 x AA size battery (1.5 V)		
	Operating time	typ. 8 h		
	<b>Microphone Specifications</b>			
	Pick-up pattern	Supercardioid		
	Transducer principle	Dynamic		
	Sensitivity	1.8 mV/Pa		
	Sound pressure level (SPL)	154 dB SPL		
3	<b>Digital Wireless Lapel Microphone</b>			
	<b>Receiver Specification</b>			
	Frequency range	520 - 558 MHz, 925 - 937,5 MHz, 606 - 678 MHz, 558 - 626 MHz, 626 - 698 MHz, 718 - 790 MHz, 470 - 558 MHz, 558 - 608 MHz		
	THD, total harmonic distortion	$\leq 0.9$ %		
	Switching bandwidth	up to 88 MHz		
	Signal-to-noise ratio	$\geq 115$ dBA		
	Modulation	Wideband FM		
	Adjacent channel rejection	Typically $\geq 75$ dB		
	Intermodulation attenuation	Typically $\geq 70$ dB		
	Receiving frequency	3520 receiving frequencies		
	Channels	30 Channels		
	RF sensitivity	$< 2.5 \mu\text{V}$ for 52 dBA eff S/N		
	Receiver Principle	True diversity		

	Blocking	≥ 75 dB		
	Features	Ethernet connection for Wireless Systems Manager (WSM) control software for advanced frequency coordination in multi-channel setups		
	<b>Bodypack Specifications</b>			
	RF output power	50 mW, adjustable in three steps 10/30/50		
	AF Frequency response	Mic: 80 – 18,000 Hz, Line: 25 – 18,000 Hz		
	Power supply	2 x AA size battery (1.5 V)		
	Operating time	typ. 8 h		
	Input impedance	40 kΩ, unbalanced / 1 MΩ		
	<b>Microphone Specifications</b>			
	Pick-up pattern	omni-directional		
	Transducer principle	pre-polarized condenser microphone		
	Sensitivity	5 mV/Pa, ± 3 dB		
	Sound pressure level (SPL)	142 dB		
	Frequency response	20 to 20.000 Hz ± 3 dB		
	Connector	3.5 mm jack		
	Equivalent noise level	26 dB		
4	<b>Digital Wireless Headmic Microphone</b>			
	<b>Receiver Specification</b>			
	Frequency range	520 - 558 MHz, 925 - 937,5 MHz, 606 - 678 MHz, 558 - 626 MHz, 626 - 698 MHz, 718 - 790 MHz, 470 - 558 MHz, 558 - 608 MHz		
	THD, total harmonic distortion	≤ 0.9 %		
	Switching bandwidth	up to 88 MHz		
	Signal-to-noise ratio	≥ 115 dBA		
	Modulation	Wideband FM		
	Adjacent channel rejection	Typically ≥ 75 dB		
	Intermodulation attenuation	Typically ≥ 70 dB		
	Receiving frequency	3520 receiving frequencies		
	Channels	30 Channels		
	RF sensitivity	< 2.5 μV for 52 dBA eff S/N		
	Receiver Principle	True diversity		
	Blocking	≥ 75 dB		



	Features	Ethernet connection for Wireless Systems Manager (WSM) control software for advanced frequency coordination in multi-channel setups		
	<b>Bodypack Specifications</b>			
	RF output power	50 mW, adjustable in three steps 10/30/50		
	AF Frequency response	Mic: 80 – 18,000 Hz, Line: 25 – 18,000 Hz		
	Power supply	2 x AA size battery (1.5 V)		
	Operating time	typ. 8 h		
	Input impedance	40 k $\Omega$ , unbalanced / 1 M $\Omega$		
	<b>Microphone Specifications</b>			
	Pick-up pattern	omni-directional		
	Sensitivity	5 mV/Pa $\pm$ 3 dB		
	Sound pressure level (SPL)	143 dB		
	Frequency response	20 to 20.000 Hz $\pm$ 3 dB		
	Connector	3.5 mm jack		
	Equivalent noise level	27 dB		
	Nominal impedance	1 k $\Omega$		
	Min. terminating impedance	4.7 k $\Omega$		
5	<b>Dante Interface</b>			
	Input Ports:	4 XLR balanced and RF filtered mic/line inputs		
	Gain	0 dB, +15 dB, +30 dB, +45 dB, software selectable		
	Input impedance	> 1.8 K $\Omega$		
	Frequency response	20 Hz - 20 kHz		
	System THD+N	< 0.02 %		
	Physical level	Standard Ethernet		
	Connector	Single RJ-45		
	Cable quality	CAT-5		
	Transmission speed	100 Mbps		
7	<b>Digital Signal Processor</b>			
	Number of Min Channels	Min 12 with AEC mic/line or better		
	Outputs	12 line or better		
	Frequency response:	20-20,000 Hz		
	THD+N:	0.005%		
	Crosstalk	<-110 dB		
	Dynamic Range	109 dB		
	Latency	20 ms		
	Convergence Rate:	40 dB/second		

	Tail Length:	300 ms		
	Total Cancellation:	>65 dB		
	Connectors	RS-232, LAN: RJ45 , CLINK2		
	Telephone Interface	Single and dual-line PSTN cards		
8	<b>8-channel bridgeable class D power amplifier</b>			
	dynamic output power 4 ohms	8 x 350 watts		
	dynamic output power 8 ohms	8 x 175 watts		
	dynamic output power bridged 8 ohms	4 x 650 watts		
	RMS output power 4 ohms	8 x 250 watts		
	RMS output power 8 ohms	8 x 125 watts		
	output power RMS bridged 8 ohms	4 x 500 watts		
	Balanced line input	8 Nos.		
	Input Sensitivity	0 dB		
	S/N Ratio	>100 dB		
	THD	<0.5%		
	power supply technology	switching mode power supply		
	channel separation	> 60 dB @ 1 kHz		
	power amp topology	class-D		
	Protection	over current, over temperature		
9	<b>Slim Sound Column speaker</b>			
	Frequency response	250 - 20K Hz		
	Max SPL @ 1m	100 dB		
	woofer size	4 x 2 inch		
	tweeter size	1 inch		
	low impedance RMS power	20 watts @ 8 ohm		
	low impedance dynamic power	30 watts @ 8 ohm		
	100V transformer power taps	20 - 10 - 5 watts		
	IP rating	66		
	Vertical dispersion angle 1000 Hz	110°		
	Main construction material	Aluminium		
	Woofer cone material	coated paper		
	Mounting system	L-brackets		
	Grille main material	Aluminium		
	closest RAL colour	RAL9016		
10	<b>Thin edge ceiling loudspeaker</b>			
	loudspeaker system	2-way		
	Frequency response	50 - 20K Hz		
	Max SPL @ 1m	107 dB		

	woofer size	8 inch		
	tweeter size	1 inch		
	low impedance dynamic power	100 watts		
	low impedance RMS power	60 Watt		
	Impedance	8 ohms		
	IP rating	50		
	Vertical dispersion angle 1000 Hz	180°		
	Mounting system	3 screws		
	Woofer cone material	polypropylene		
	Main construction material	ABS plastic		
	IP rating	50		
	Closest RAL colour (subject to deviations)	RAL9010		
11	<b>Presentation Switcher</b>			
	Matrix	8x4 matrix		
	Input Ports	6 x HDMI, 2 x HDBT		
	Output Ports	2 x HDMI, 2 x HDBT		
	SDRAM	512 MB		
	Flash	4 GB		
	Resolution	4K @ 60		
	Analog-To-Digital Conversion	24-bit 48 kHz		
	Frequency Response	20 Hz to 20 kHz		
	S/N Ratio	>108 dB		
	Control Ports	4 x IR/SERIAL OUT, 1 x IR in, 4 x Relay, 2 x RS-232		
	Features	It should have matrix switcher, video scaler, streaming decoder, mic mixer, audio DSP, amplifier.		
	Built-in Wireless presenter	For wireless presentation of content from a laptop, smartphone, or tablet device via a Wi-Fi wireless network.		
12	<b>4K Multiformat Transmitter</b>			
	Input Ports	2 x HDMI, 1 x VGA, 1 x audio ports, 3 x 1 auto switching		
	Output Port	1 x HDBT		
	Cable length	Supports cable lengths up to 330 ft (100 m) for 1080p, WUXGA, and 2K usin CAT5e cable		
	Control Port	Ethernet		

	HDCP	HDCP 2.2 compliant		
	Audio Formats	Should handles Dolby TrueHD, Dolby Atmos, DTS-HD, and uncompressed 7.1 linear PCM audio		
	Features	EDID and CEC compatible		
13	<b>4K HDMI Receiver with Scalar</b>			
	Input Ports	1 x HDBT		
	Output Port	1 x HDMI		
	Scaling	Built-in scaling		
	Cable length	Supports cable lengths up to 330 ft (100 m) for 1080p, WUXGA, and 2K using CAT5e cable		
	Control Port	Ethernet, IR, RS-232		
	HDCP	HDCP 2.2 compliant		
	Audio Formats	Should handles Dolby True HD, Dolby Atmos, DTS-HD, and uncompressed 7.1 linear PCM audio		
	Features	EDID and CEC compatible		
14	<b>4K HDMI Receiver</b>			
	Input Ports	1 x HDBT		
	Output Port	1 x HDMI		
	Cable length	Supports cable lengths up to 330 ft (100 m) for 1080p, WUXGA, and 2K usin CAT5e cable		
	Control Port	Ethernet, IR, RS-232		
	HDCP	HDCP 2.2 compliant		
	Audio Formats	Should handles Dolby TrueHD, Dolby Atmos, DTS-HD, and uncompressed 7.1 linear PCM audio		
	Features	EDID and CEC compatible		
15	<b>4K HDMI Transmitter</b>			
	Input Ports	1 x HDMI		
	Output Port	1 x HDBT		
	Cable length	Supports cable lengths up to 330 ft (100 m) for 1080p, WUXGA, and 2K usin CAT5e cable		
	Control Port	Ethernet		
	HDCP	HDCP 2.2 compliant		

	Audio Formats	Should handles Dolby TrueHD, Dolby Atmos, DTS-HD, and uncompressed 7.1 linear PCM audio		
	Features	EDID and CEC compatible		
16	<b>HDMI Distribution Amplifier</b>			
	Input	1 x HDMI		
	Output	8 x HDMI		
	Resolution	4K60 4:4:4 and HDR video signals		
	HDCP compliant	HDCP 2.2 or HDCP 1.4, EDID management options		
	Audio Formats	Should Handle Dolby TrueHD, Dolby Atmos, DTS HD, DTS:X, and uncompressed 7.1 linear PCM audio		
17	<b>7" Touch Panel</b>			
	Display Type	TFT Active Matrix Color LCD / LED		
	Size	7 inch diagonal or more		
	Aspect Ratio	16:09		
	Resolution	1024x600 or more		
	Brightness	350 cd/m2 or better		
	Contrast ratio	800:1 or better		
	Color Depth	16.7M colors		
	Viewing Angle	±80° horizontal, ±80° vertical or better		
	Features	Should have built-in camera, microphone and speaker		
	Accessories	Should have table top mount kit for above touch panel.		
18	<b>65-inch 4K LED Display</b>			
	Resolution	4K UHD		
	Screen Size	65" Diagonal		
	Brightness	400 nits (cd/m2)		
	LED lifespan	50,000 hours to 50% brightness		
	Pixel pitch	0.372 x 0.372mm		
	Contrast ratio (full field)	1200:1 typical		
	Refresh rate	60Hz		
	Response time	8ms typical		
	Display colors	10 bit, 1.07 billion colors		
	Video inputs	2 x HDMI, 1 x DisplayPort, 1 x VGA, 1 x YPbPr, 2 x USB 2.0, USB 3.0		
	Video output	1 x Display port, 1 x HDMI		

	Control Ports	1 x RS-232, 1 x IR, 1 x LAN		
	Features	OPS slot, Anti-glare treatment, 2 x 8W speakers, On/off scheduler, USB playback of Photo/Video/MP3, Kensington lock, miracast, wi-fi		
19	<b>55" 4K Display</b>			
	Resolution	3,840 x 2,160 (4K UHD)		
	Screen Size	55"/139.7cm		
	Brightness	400 nits (cd/m2)		
	LED lifespan	50,000 hours to 50% brightness		
	Pixel pitch	0.315 x 0.315mm		
	Contrast ratio (full field)	1200:1 typical		
	Refresh rate	60Hz		
	Response time	8ms typical		
	Display colors	10 bit, 1.07 billion colors		
	Video inputs	2 x HDMI, 1 x DisplayPort, 1 x VGA, 1 x YPbPr, 2 x USB 2.0, USB 3.0		
	Video output	1 x Display port, 1 x HDMI		
	Control Ports	1 x RS-232, 1 x IR, 1 x LAN		
	Features	OPS slot, Anti-glare treatment, 2 x 8W speakers, On/off scheduler, USB playback of Photo/Video/MP3, Kensington lock, miracast, wi-fi		
20	<b>Video Conferencing System</b>			
	Package	Full HD 1080p Codec, Cables, and Wireless Remote Control		
	Protocols	H.323 and SIP Compliant		
		H.261, H.263, H.264. The system should support higher Video Compression protocols such as H.264 High Profile/H.265		
		H.239, BFCP		
		H.263 & H.264 Video error concealment		
		G.711, G.722, G.722.1 audio protocols		
		H.281 far end camera control		
	Video Inputs	It should have 2 x HD Camera Interface.		
		It should have another inbuilt 3 x HDMI/DVI/VGA port for PC, Document Camera etc.		

	Video Outputs	It should have atleast 2 x HDMI/DVI ports to connect displays.		
		It should have 1 x HDMI/DVI for connecting recording device.		
	Main Video Resolutions	Shall work in high definition video resolution of 1080p60fps for live video for both Transmit and receive		
	Content Resolutions	The system should support 1080p30fps content along with 1080p30fps Main Video		
		It should be capable of enhancing video conferencing experience (by adding additional hardware/software in future) with advanced speaker-tracking technology such that it automatically scans the room and seamlessly commands the main camera to appropriately frame the speaker during a call without any manual intervention.		
	Audio Inputs	It should support 4 nos of Omni Directional Microphones either directly or through array. 1 Mics should be supplied Day One.		
		It should have additional Audio Input for PC Audio		
	Audio Outputs	It should have atleast 1 x HDMI port		
		It should have atleast 1 x 3.5mm/RCA Stereo Line-Out port		
	Network	Should have 100/1000 Mbps auto speed Ethernet port		
		Support Data Rate of 6 Mbps or more on IP (H.323 and SIP)		
	Multipoint	The system should have capability to connect to 7 more locations all with Full HD resolution (1+7) using the inbuilt capability		
	Other Ports	Serial/Ethernet control port for integrating with external control system		
	Other Features	Should work with IPv4 and IPv6 addressing schemes		
		Should support QOS (Quality of Service) definitions		

		Should support H.460.X Firewall traversal protocol		
		Global Directory / Centralized directory support		
	Power	Should operate on 230v, 50 Hz Power supply		

## 8. Tender –BOQ (Tentative)

AUDITORIUM					
SL.NO.	EQUIPMENTS	UNIT	QTY	MAKE	MODEL
(A)	<b>Audio</b>				
1	Supply, Installation, testing and commissioning of Main FOH 12" to 15" two way full range speaker.	NOS	4		
2	Supply, Installation, testing and commissioning of Powerful passive dual 10" to 15" subwoofer.	NOS	2		
3	Supply, Installation, testing and commissioning of 8" to 10" two-way full range speaker.	NOS	12		
4	Supply, Installation, testing and commissioning of 12" to 15" two way full range speaker	NOS	2		
5	Supply, Installation, testing and commissioning of 30watt wall mount speaker (powered / external).	NOS	4		
6	Supply, Installation, testing and commissioning of 8-channel bridgeable class D power amplifier.	NOS	6		
7	Supply, Installation, testing and commissioning of Digital Wireless Gooseneck Microphone.	NOS	6		
8	Supply, Installation, testing and commissioning of wireless digital gooseneck microphone charger.	NOS	3		
9	Supply, Installation, testing and commissioning of drum kit .	NOS	1		
10	Supply, Installation, testing and commissioning of Digital Wireless Handheld Microphone.	NOS	3		
11	Supply, Installation, testing and commissioning of Digital Wireless Lavalier Microphone.	NOS	2		
12	Supply, Installation, testing and commissioning of Digital Wireless Headworn Microphone.	NOS	1		
13	Supply, Installation, testing and commissioning of Network enabled charger.	NOS	2		
14	Supply, Installation, testing and commissioning of	NOS	1		



	dante pre amp.				
15	Supply, Installation, Tetsing & Commisssoning of Digital signal processor .	NOS	1		
16	SITC of Remote Antenna .	NOS	2		
17	SITC of Antenna Splitter/ Combiner .	NOS	8		
18	SITC of 48 channel mixer with stage box.	NOS	1		
19	Supply Installation, testing & commisssoning of Ceiling Microphone.	NOS	4		
20	Supply, Installation, Tetsing & Commisssoning of two core speaker cable 2x 2.5 sq mm	MTRS	400		
21	Supply and laying of two core speaker cable 2x 1.5 sq mm	MTRS	200		
22	Supply and laying of two core shielded microphone cable	MTRS	200		
23	Supply and laying of UTP CAT-6 cable	MTRS	300		
24	Supply, Installation, Testing & Commissioning Microphone Stage Box complete with Neutrik XLR Connector single. 4 XLR conector )	NOS	4		
25	SITC of Extension cable for connectivity of combiner to the antenna <b>(10m)</b>	NOS	8		
26	SITC of Extension cable for connectivity of combiner to the antenna <b>(2m)</b>	NOS	24		
27	Supply, Installation, Testing & Commissioning of Stage Box Speaker Stage Box complete with Neutrik Speakon Connector single.	NOS	2		
28	Supply, Installation, Testing & Commissioning of Mic Boom Table stand.	NOS	4		
29	Supply, Installation, Testing & Commissioning of Mic Boom Floor stand.	NOS	2		
30	Supply, Installation, Tetsing & Commisssoning of Connectors, Patch Cables etc	NOS	1		
31	Supply, Installation, Tetsing & Commisssoning of Equipment rack 42U for housing Audio Video Equipments	NOS	1		
<b>(B)</b>	<b>Switching &amp; Control</b>				
1	Supply, Installation, Testing & Commissioning of 4K Digital Modular Matrix Switcher.	NOS	1		
2	Supply, Installation, Testing & Commissioning of Control processor	NOS	1		
3	Supply, Installation, Testing & Commissioning of Wireless Digital Presenter.	NOS	1		
4	Supply, Installation, Testing & Commissioning of 4 K Multiformat Transmitter.	NOS	1		

5	Supply, Installation, Testing & Commissioning of HDMI Reciver.	NOS	8		
6	Supply, Installation, Testing & Commissioning of HDMI Transmitter.	NOS	8		
7	Supply, Installation, Testing & Commissioning of 4K HDMI distribution amplifier.	NOS	1		
8	Supply, Installation, Testing & Commissioning of 10" wired touch panel.	NOS	1		
9	Supply, Installation, testing & comissioning of Mettalic Podium.	NOS	1		
10	Supply installation,testing and commissioning of 21.5" IPS interactive touch display.	NOS	1		
11	Supply installation,testing and commissioning of and commissioning of document Camera .	NOS	1		
12	Supply installation,testing and commissioning of 4 Channel lighting dimmer module.	NOS	1		
13	Supply, testing and commissioning of PC desktop with i5 processor; 500 GB HDD; 4 GB RAM, HDMI / VGA output with wireless keyboard and mouse as per the tender specifications.	NOS	1		
14	Supply, Installation, Testing and Comissioning of Full HD PTZ camera.	NOS	3		
15	Supply, Installation, Testing and Comissioning of remote control panel for PTZ Cameras.	NOS	1		
16	Supply , Installation , Testing & Commissioning of HD 6 channel HD streaming and recording device.	NOS	1		
17	Suppply and Laying of RG59 Coaxial video cable.	MTRS	300		
18	Supply, Installation, Testing & Commissioning of 24 port Poe Network switch.	NOS	1		
19	Supply & Laying of CAT-5/6 shielded cable .	MTRS	200		
20	Supply & fixing of 1.8 mtr HDMI Cable	NOS	20		
21	Supply & fixing of 3.5 mtr HDMI Cable	NOS	4		
22	Supply & fixing of 1.8 Mtr VGA with Audio cable	NOS	4		
<b>(C)</b>	<b>Video</b>				
1	Supply, Installation, Testing and Comissioning of direct LED Video wall.	NOS	1		
2	Supply, Installation, Testing & Commissioning of 65-inch LED Display.	NOS	1		
3	Supply, Installation, Testing & Commissioning of 55-inch LED Display.	NOS	2		
<b>(D)</b>	<b>Stage Lighting and Furnishing</b>				
1	Supply, Installation, Testing & Commissioning of LED Par light.	NOS	12		

2	Supply, Installation, Testing & Commissioning of LED profile light.	NOS	4		
3	Supply, Installation, Testing & Commissioning of LED Blinder 4 x 4 COB LED light.	NOS	2		
4	Supply, Installation, Testing & Commissioning of LED Fresnel light.	NOS	6		
5	Supply, Installation, Testing & Commissioning of LED Par 64 Optical light.	NOS	16		
6	Supply, Installation, Testing & Commissioning of CMY LED Moving head Light.	NOS	2		
7	Supply, Installation, Testing & Commissioning of specifications Led Moving head wash light.	NOS	4		
8	Supply, Installation, Testing & Commissioning of Light Point Wiring from dimmer.	NOS	22		
9	Supply, Installation, Testing & Commissioning of DMX Wiring Points .	NOS	46		
10	Supply, Installation, Testing & Commissioning of MS sheet metal fabricated DMX junction box made up of 22SWG CRCA sheet of jindal make.	NOS	14		
11	Supply, Installation, Testing & Commissioning of MS sheet metal fabricated DMX junction box made up of 22SWG CRCA sheet of jindal make.	NOS	1		
12	Supply, Installation, Testing & Commissioning of MS sheet metal fabricated 1-way power junction box.	NOS	3		
13	Supply, Installation, Testing & Commissioning of MS sheet metal fabricated power cable termination.	NOS	1		
14	Supply, Installation, Testing & Commissioning of MS sheet metal fabricated 50-way power cable termination .	NOS	1		
15	Supply, Installation, Testing & Commissioning of Well designed and engineered rack mount type power distribution centre panel with necessary metering, outgoing feeders and 250 amps incomer.	NOS	1		
16	Supply, Installation, Testing & Commissioning of 40U" Din rack for mounting PDCP and MCBP module and EDP.	NOS	1		
17	Supply, Installation, Testing & Commissioning of MS Fabricated duly powder coated power junction box (PJB) for connecting motors.	NOS	6		
18	Supply, Installation, Testing & Commissioning of 6-way DMX Splitter/Booster.	NOS	2		
19	Supply, Installation, Testing & Commissioning of compact lighting console.	NOS	1		

20	Supply, Installation, Testing & Commissioning of Stage Furnishing System - Rear Stage Curtain - Made out of Glazed Cotton / cashmilon with horizontal / vertical sliding arrangement complete with fixing rails, brackets, sliding arrangement and Motorised operation complete with runners, master runners, pullies, 3mm steel wire rope, one HP motors - 2 Nos., Air bracker contractors, 2 Nos. micro switches for auto stop, 3 Nos. push buttons for forward, reverse and stop positions, draped to half area when in closed position, minimum overlap at centre should be 900mm and should be stitched in double gathering with masking frill drop from prosc along with Motorised rail. with electric motor, Gear Box, running on bearings, switchable mode using Gear Box, railing System, Roller, Bearings, Relay, Limit Switch, Track etc.	NOS	1		
21	Supply, Installation, Testing & Commissioning of M.S. Pipe Ladders to be provided on sides of the Stage to be fixed on the existing GI pipe or top grid. Made of 50mm x 25mm MS pipe.	NOS	4		
22	Supply, Installation, Testing & Commissioning of Stage Furnishing System - Main Lights Bars (Back, Center and FOH Light Bars) ,made with 48mm GI pipe .	NOS	3		

CONFERENCE ROOM					
S.NO.	ITEM DESCRIPTION	UNIT	QTY	MAKE	MODEL
<b>(A)</b>	<b>Audio System</b>				
1	Supply, Installation, testing and commissioning of Digital Wireless Boudanry layer Microphone.	NOS.	18		
2	Supply, Installation, testing and commissioning of wireless digital gooseneck microphone charger.	NOS.	9		
3	Supply, Installation, testing and commissioning of Wireless Handheld Microphone .	NOS.	1		
4	Supply, Installation, testing and commissioning of Wireless Lapel Microphone.	NOS.	1		
5	Supply, Installation, testing and commissioning of Wireless headset mic .	NOS.	1		
6	Supply, Installation, testing and commissioning of dante pre amp.	NOS.	1		
7	Supply, Installation, Tetsing & Commisisoning of Digital signal processor.	NOS.	2		
8	Supply, Installation, testing and commissioning of 8-channel bridgeable class D power amplifier.	NOS.	1		
9	Supply, Installation, Tetsing & Commisisoning of Minimum 4x2" or better slim sound column speaker.	NOS.	2		
10	Supply, Installation, Tetsing & Commisisoning of 8" two-way, thin edge ceiling loudspeaker.	NOS.	6		
11	Supply, Installation, Tetsing & Commisisoning of Equipment rack 36U for housing Audio Video Equipments	NOS.	1		
12	Supply and laying of two core speaker cable	MTRS	200		
13	Supply and laying of two core shielded microphone cable	MTRS	100		
14	Supply and laying of UTP CAT-6 cable	MTRS	100		
15	Supply, Installation, Tetsing & Commisisoning of Connectors, Patch Cables etc	LOT	1		
<b>(B)</b>	<b>Switching &amp; Control</b>				
1	Supply, Installation, Testing & Commissioning of Presentation Switcher.	NOS.	1		
2	Supply, Installation, Testing & Commissioning of Table Mount Multi-Connection Solution.	NOS.	2		
3	Supply, Installation, Testing & Commissioning of 4K Multiformat Transmitter .	NOS.	2		
4	Supply, Installation, Testing & Commissioning of HDMI Receiver with built in scaler.	NOS.	2		
5	Supply, Installation, Testing & Commissioning of HDMI Reciver.	NOS.	2		
6	Supply, Installation, Testing & Commissioning of HDMI	NOS.	2		

	Transmitter.				
7	Supply, Installation, Testing & Commissioning of 7" wired touch panel .	NOS.	1		
8	Supply, Installation, Testing & Commissioning of Table Doc for above touch panel.	NOS.	1		
9	Supply, Installation, Testing & Commissioning of 24 port Poe Network switch.	NOS.	1		
10	Supply & Laying of CAT-5/6 shielded cable .	MTRS	200		
11	Supply & fixing of 1.8 mtr HDMI Cable	NOS.	8		
12	Supply & fixing of 3.5 mtr HDMI Cable	NOS.	2		
13	Supply & fixing of 1.8 Mtr VGA with Audio cable	NOS.	4		
<b>(C)</b>	<b>Video</b>				
1	Supply, Installation, Testing & Commissioning of 65-inch LED Display.	NOS.	1		
2	Supply, Installation, Testing & Commissioning of 55-inch LED Display.	NOS.	2		
<b>(D)</b>	<b>Video Conferencing</b>				
1	Supply, Installation, Testing & Commissioning of Video Conference System .	NOS.	1		

**Note: BOQ in the tender document is tentative as per the estimate carried out by NMRC. However in actual, every bidder is required to do a survey of the sites at their own cost and risk and prepare the BOQ to be submitted in the bid.**

## **9 Draft Contract Agreement**

THIS AGREEMENT made on the .....day of ..... 2019 at Noida, District Gautam Budh Nagar, Uttar Pradesh Between **Noida Metro Rail Corporation Limited** (Hereafter referred to as "NMRC"), a company incorporated under Companies Act 2013, vide corporate identification Number: U60231UP2014SGC066849 and having its registered office at **Block-III, 3rd Floor, Ganga Shopping Complex, Sector-29, Noida -201301, District Gautam Budh Nagar, Uttar Pradesh, India** represented by ..... of the company, by virtue of his designation and authorization by **Shri ....., Managing Director, NMRC** (hereinafter called as the "Purchaser"), which expression shall unless excluded by or repugnant to the context or meaning thereof be deemed to include its successors and permitted assigns) of the one part,

**AND**

..... having its registered office at  
....., represented by ..... (Herein  
after called the "**Contractor**", which expression shall unless excluded by or repugnant to the  
context or meaning thereof be deemed to include its successors and permitted assigns) of the  
other part. WHEREAS the Purchaser desires that the Works known as the  
"....." should be executed by the  
Contractor, and has accepted a contract by the Contractor for the execution and completion of  
these Works.

The Purchaser and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are  
respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of  
this Agreement -

**Reference:**

- (i) Tender No. .... Dated .....
- (ii) Bid Documents duly accepted and submitted by ..... dated .....
- (iii) The Bidding Documents which include all the Sections specified below:
  - a. General Information
  - b. Terms of Reference
  - c. Instructions to Bidders
  - d. Eligibility, Evaluation and Selection Process
  - e. General Conditions of Contract
  - f. Special Conditions of Contract
  - g. Technical Specifications
  - h. Appendices a
- (iv) Notice of Award (.....) issued by NMRC
- (v) Letter of Acceptance of NOA (.....) given by ..... to NMRC
- (vi) Any other admitted correspondence documents between NMRC and the Bidder.

**3. Project Cost**

The total project cost **INR** ..... (INR  
..... only) as quoted by contractor is inclusive  
of all applicable taxes except GST.

#### 4. Duration of Contract

The work (on Turn-key basis) includes Implementation of Audio Video System at NMRC Auditorium and Meeting room would be Comprehensive Annual Maintenance Contract (CAMC) for 3 (Three) years after expiry of DLP(Defect Liability Period) of 1 (one) Year from the date of commissioning. However, extension can be given for CAMC on the conditions as decided by NMRC.

#### 5. Price Schedule

NMRC shall consider the following price, as quoted by the contractor as part of financial bid:

S.No	Location	Unit Price (a)	3 years CAMC Value (b)	Total Price (c) = (a) + (b)
1	NMRC Auditorium			
2	NMRC Meeting Room			

6. The court at District Gautam Budh Nagar, Uttar Pradesh shall have the exclusive jurisdiction to try all disputes arising out of this agreement between the parties.
7. In consideration of the payments to be made by the Purchaser to the Contractor as specified in this Agreement, the Contractor hereby covenants with the Purchaser to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract and Notice of Award issued. **“Any conditions, deviation, assumption, exclusion, suggestion of alternative clauses, request of amendments in conditions & specifications of work submitted by bidders along with his Technical Bid or Financial bid, which is different from the Tender Document, Corrigendum, Addendum uploaded by NMRC on the E-Tender Portal (<http://etender.up.nic.in>) and any other correspondence in this regard, shall not be treated as a part of the contract Agreement & shall not be binding upon NMRC in anyway whatsoever at any stage of work during execution or thereafter.”**
8. The Purchaser hereby covenants to pay the Contractor in consideration of the execution and completion of the Works, the Contract Price or such other sum as may become payable



under the provisions of the Contract at the times and in the manner prescribed by the Contract and NOA.

IN WITNESS where of the parties hereto have caused this Agreement to be executed in accordance with the laws of India on the day, month and year specified above.

For and on behalf of the Contractor  
Signature of the authorized official

For and on behalf of the Purchaser  
Signature of the authorized official

**Name of the official**

**Name of the official**

Stamp/Seal of the contractor

Stamp/Seal of the Purchaser

In the presence of:

In the presence of:

Sign of Witness 1\_\_\_\_\_

Sign of Witness 1\_\_\_\_\_

Name\_\_\_\_\_

Name\_\_\_\_\_

Address\_\_\_\_\_

Address\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Sign of Witness 2\_\_\_\_\_

Sign of Witness 2\_\_\_\_\_

Name\_\_\_\_\_

Name\_\_\_\_\_

Address\_\_\_\_\_

Address\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## **10 Appendices and Forms**

### **10.1 Form 1: Letter of Proposal Submission**

[Location, Date]

To,

Executive Director

Noida Metro Rail Corporation (NMRC) Limited

Block-III, 3<sup>rd</sup> Floor, Ganga Shopping Complex,

District Gautam Budh Nagar, Sector-29,

Noida, Uttar Pradesh (201301)

**Subject: Implementation of Audio-Video System at NMRC Auditorium and Meeting room.**

Dear Sir,

We, the undersigned, offer to provide the Implementation of Audio Video System at NMRC Auditorium and Meeting room in accordance with your RFP Document dated [ Insert Date] and our Proposal. We are hereby submitting our Technical and Financial Proposal, through e-Bid. We confirm that we have read the RFP Document in totality and abide by the terms and conditions stated in the document.

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification. Our Proposal is binding upon us.

We understand you are not bound to accept any Bid you receive.

---

Yours Sincerely,

Authorized Signature [In full and initials]:

Name and Title of Signatory:

Name and address of Firm:

**10.2 Form 2: Firm Details**

1.	<p>Title and name of the Project:</p> <p><b>Implementation of Audio-Video System at NMRC Auditorium and Meeting room.</b></p>
2.	<p>State the structure of the Bidder's organization (Bidders to complete/delete as appropriate)</p>
3.	<p>For Bidders who are individual companies or firms, state the following:</p> <p>Name of Company or firm: .....</p> <p>Legal status: (e.g. incorporated private company, proprietorship, etc.)          .....</p> <p>Registered address: .....</p> <p>Year of incorporation.....</p> <p>Principal place of business: .....</p> <p>Contact person: .....</p> <p>Contact person's title: .....</p> <p>Address, telephone, facsimile number and e-mail ID of contact person:          .....          .....          .....</p>
4.	<p>Authorized Representative</p> <p>.....</p>

### 10.3 Form 3: Capability Statement

It is Compulsory for the bidder to fill this statement and the bidder must upload those document that support this statement

Tender Reference No: \_\_\_\_\_

Name of Work: \_\_\_\_\_

Name of Bidder: \_\_\_\_\_

<b>S.No.</b>	<b>ELIGIBILITY CRITERIA</b>	<b>(To be filled by the Bidder)</b>
1	Sole proprietorship/ partnership firm/ public limited company/ private limited company	Yes/ No
2	The Bidder should be licensed manufacturer who manufactures the items offered. or The Bidder should be official Indian representative of the licensed manufacturer who manufactures the items offered.	
3	The Bidder should have supplied in India should be either of the following:  i. One order of similar nature of value not less than Rs. <b>4,72,26,564</b> or  ii. Two orders of similar nature of value not less than Rs. <b>2,95,16,602</b> each or  iii. Three orders of similar nature of value not less than Rs. <b>2,36,13,282</b> each or	3 Years

<u>S.No.</u>	<u>ELIGIBILITY CRITERIA</u>	<u>(To be filled by the Bidder)</u>								
4	The Bidder should have experience of supply, installation, commissioning, training and maintenance of Audio-Video system, Video-Conference system and the items quoted by them should have satisfactory performance during last 7 (Seven) years.	7 Years								
5	The Bidder should have from the area of audio-video equipment in the last 3 Financial Years preceding the Bid Due Date -  i. Minimum average annual turnover of <b>Rs.8,85,49,807</b>	<table border="1"> <tr> <td data-bbox="691 880 901 954">FY 2018-19</td> <td data-bbox="901 880 1106 954"></td> </tr> <tr> <td data-bbox="691 954 901 1028">FY 2017-18</td> <td data-bbox="901 954 1106 1028"></td> </tr> <tr> <td data-bbox="691 1028 901 1102">FY 2016-17</td> <td data-bbox="901 1028 1106 1102"></td> </tr> <tr> <td data-bbox="691 1102 901 1176">Total</td> <td data-bbox="901 1102 1106 1176"></td> </tr> </table>	FY 2018-19		FY 2017-18		FY 2016-17		Total	
FY 2018-19										
FY 2017-18										
FY 2016-17										
Total										
5	The Manufacturer should have adequate plant and manufacture capacity to manufacture and supply the items offered within the delivery schedule as mentioned in the tender document.									
6	The Manufacturer has established quality control system to monitor quality check at all stages of the manufacturing process.									
7	The Bidder (and the Manufacturer, in case the Bidder is the Representative) should not be black listed /debarred/ declared ineligible for corrupt and fraudulent practices by any government/government-undertaking/ semi-government/ govt. controlled institutions in India and should not have any disciplinary proceedings pending against the Bidder in last 5 (five) financial years.									

<u>S.No.</u>	<u>ELIGIBILITY CRITERIA</u>	(To be filled by the Bidder)								
8	The Bidder (and the Manufacturer, in case the Bidder is the Representative) should have positive profit before tax in the last 3 (Three) Financial Years preceding Bid Due Date	<table border="1"> <tr> <td data-bbox="692 443 901 517">FY 2018-19</td> <td data-bbox="901 443 1109 517"></td> </tr> <tr> <td data-bbox="692 517 901 591">FY 2017-18</td> <td data-bbox="901 517 1109 591"></td> </tr> <tr> <td data-bbox="692 591 901 665">FY 2016-17</td> <td data-bbox="901 591 1109 665"></td> </tr> <tr> <td data-bbox="692 665 901 728">Total</td> <td data-bbox="901 665 1109 728"></td> </tr> </table>	FY 2018-19		FY 2017-18		FY 2016-17		Total	
FY 2018-19										
FY 2017-18										
FY 2016-17										
Total										

#### 10.4 Form 4: Work Experience

The following format shall be used for statement of experience of Bidder:

**Details of orders along with past satisfactory performance for the same order for quoted item executed should be furnished in the following format.**

S.No	Name and address of purchaser	Full of	Order No. and date	Description of stores	Qty supplied	Value of order	Date of delivery	Delivery Location

Place

Date

Signature

Seal

Designation

**NOTE:**

Following needs to be submitted:

1. NOA of past performance to be enclosed masking the price.
2. Certificate from the same Purchaser (whose NOA are enclosed) to indicate that the contract was satisfactorily performed.

**10.5 Form 5: Financial Capability Details**

Bidder should submit their financial details as per the following:

This is to certify that the Average Annual Turnover of M/s  
.....

having registered office at .....

.....for last Three years is as below:

S.No.	Financial year	Name of the Bidder	Turnover (INR)
1.	2018-19		
2.	2017-18		
3.	2016-17		
	Average Annual Turnover		

**Authorized Signatory**

**(Name & Designation of Authorized Signatory)**

**Signature & Seal of Chartered Accountant:**



**10.6 Form 6: Memorandum**

**Name of Work: Implementation of Audio Video System at NMRC Auditorium and Meeting room.**

I/We agree to keep the quoted rate open for acceptance for 180 days from the due date of submission thereof and not make any modification in its terms and conditions.

I/We hereby declare that I/We shall treat the quotation documents, drawings and other records connected with the works as secret/ confidential documents and shall not communicate information derived there from to any person other than the information in any manner prejudicial to the safety of NMRC.

---

Signature of the bidder with seal

Dated:

Witness:

Address:

Occupation

**10.7 Form 7: Undertaking - 1**

**Name of Work: Implementation of Audio Video System at NMRC Auditorium and Meeting room.**

An undertaking to the effect to be given by the bidder (in case of representatives both Manufacturer and its representative have to submit the undertaking)

I confirm that M/s.....a reputed and certified manufacturer of the equipment

- a. Has not been banned /declared ineligible for corrupt and fraudulent practices by any government/government-undertaking/ semi-government/ govt. controlled institutions in India, any court of law having jurisdiction in India and do not have any disciplinary proceedings or pending litigations for the past 5 (five) years.
- b. Does not have any pending litigation & non-performing contracts during last 5 (five) years. Further, has not been barred by any government/government-undertaking/ semi-government/ govt. controlled institutions/ private organizations in India.
- c. Has not abandoned any work in last 5 (five) years.
- d. Has not delayed in similar work completion during orders executed in last 5 (five) years.
- e. Does not ever been terminated due to poor performance.
- f. Has not suffered Bankruptcy/ insolvency in last 5 (five) years.
- g. Has not been blacklisted by any organization.
- h. Has not submitted any misleading information in the Bid.
- i. Is financially sound to perform the work.

\_\_\_\_\_  
Signature of the bidder with seal

Dated:

Witness:

Address:

Occupation

## 10.8 Form 8: Undertaking - 2

### **Name of Work: Implementation of Audio Video System at NMRC Auditorium and Meeting room.**

An undertaking to the effect to be given by the bidder

I confirm that

- a. We have service support facility located at Noida/ Greater Noida.

OR

In case, we don't, we shall develop such a facility within two months of issue of Letter of Acceptance of NOA.

(We shall provide the address and contact details of these facility or provide an Undertaking letter to setup a facility from the OEM/OEMs)

- b. AC or DC power distribution system shall be provided with MCB protection for the field equipment's and the equipment's in the operation and control centre.
- c. All required fixing materials including mounts viz. screws, nuts, clamps, pipes, wires, terminals and miscellaneous materials etc. will be supplied and as directed by NMRC. All the associated cable connectivity towards the functional requirements of the Audio Video Equipment in the supply, installation, commissioning and training at various sites shall be borne by us.
- d. The work is to be carried out at the sites/places mentioned in the in the NOA in Noida/ Greater Noida.
- e. Materials shall be supplied by the Contractor for the execution of work with relevant specifications/ drawing reference mentioned in the tender document.
- f. Any bugs/defects arising in the software will be attended free of cost and any improvements made to existing features should also be supplied free of cost.

---

Signature of the bidder with seal

Dated:

Witness:

Address:

Occupation

## 10.9 Form 9: Proforma for Corporation from Manufacturers

To

Executive Director

Noida Metro Rail Corporation (NMRC) Limited

Block-III, 3<sup>rd</sup> Floor, Ganga Shopping Complex,

Noida -201301,

District Gautam Budh Nagar, Uttar Pradesh

Dear Sir,

- a. We .....an established and reputable manufacturers of Audio-Video Equipment having factories at.....and offices at ..... do hereby authorize M/s..... (Name and address of Indian representative) to represent us, to bid, negotiate and conclude the contract on our behalf with you against Tender No .....
- b. No company/ firm or individual other than M/s .....are authorized to represent us in regard to this business against this specific tender.
- c. We / our Indian representative have/ has own service center in India. (Attach documentary proof)
- d. We have adequate plant and manufacture capacity to manufacture and supply the items offered within the delivery schedule as mentioned in the tender document.
- e. All items being offered are not obsolete and are in their current manufacturing range and their spare parts will be made available for minimum period of five years from the date of opening of the tender.
- f. All software and firmware upgrades for the system as applicable shall be free of cost for a period of five years.
- g. In case of any termination or dispute of contract /agreement /relationship with our Indian representative, we shall be laid with full responsibility of carrying the DLP along with CAMC work as mentioned in the tender document.

---

Signature and Name of the Manufacturer

---

NAME OF THE BIDDER AND SEAL

**NOTE:**

1. This letter of authority should be on the Letter-Head of the manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturer.

**10.10 Form 10: Power of Attorney**

**(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)**

**Power of Attorney to be provided by the Bidding Company in favour of its representative as evidence of authorized signatory's authority.**

Know all men by these presents, We .....(name and address of the registered office of the Bidding Company) do hereby constitute, appoint and authorize Mr./Ms.....(name and residential address) who is presently employed with us and holding the position of \_\_\_\_\_, as our Attorney to do in our name and our behalf all or any of the acts, deeds or things necessary or incidental to submission of our Bid for **Implementation of Audio-Video System at NMRC Auditorium and Meeting Room** in response to the RFP Document dated \_\_\_\_\_ issued by Noida Metro Rail Corporation ("NMRC" or "the Corporation"), including signing and submission of the Bid and all other documents related to the Bid, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document which the Corporation may require us to submit. The aforesaid Attorney is further authorized for making representations to the NMRC or any other authority, and providing information / responses to the NMRC, representing us in all matters before the NMRC, and generally dealing with the Corporation in all matters in connection with our Bid till the completion of the bidding process as per the terms of the RFP Document and further till the Contract is entered into with the NMRC and thereafter till the expiry of the Contract.

We hereby agree to ratify all acts, deeds and things done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall be binding on us and shall always be deemed to have been done by us.

All the terms used herein but not defined shall have the meaning ascribed to such terms under the RFP Document.

Signed by the within named  
..... [Insert the name of the executant company]  
through the hand of  
Mr. ....  
Duly authorized by the Board to issue such Power of Attorney  
Dated this ..... day of .....

Accepted  
.....  
Signature of Attorney  
(Name, designation and address of the Attorney)

Attested  
.....  
(Signature of the executant)  
(Name, designation and address of the executant)

.....  
Signature and stamp of Notary of the place of execution

Common seal of ..... has been affixed in my/our presence pursuant to Board of Director's Resolution dated.....

WITNESS

1. ....  
(Signature)  
Name .....  
Designation.....
2. ....  
(Signature)  
Name .....  
Designation.....

Notes:

- (1) The mode of execution of the power of attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the

executant(s) and the same should be under common seal of the executant affixed in accordance with the applicable procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by the executant(s) in this regard.

- (2) In the event, power of attorney has been executed outside India, the same needs to be duly notarized by a notary public of the jurisdiction where it is executed.
- (3) Also, wherever required, the executant(s) should submit for verification the extract of the charter documents and documents such as a board resolution / power of attorney, in favour of the person executing this power of attorney for delegation of power hereunder on behalf of the executant(s).

### 10.11 Form 11: Final Acceptance Certificate from Consignee

The Final Acceptance certificate would be a list of complete items (BOQ) delivered and installed at respective sites and their successful installation, testing, commissioning, training, and handover of the site to NMRC.

Date:

Name:

Place:

Designation



**10.12 Form 12: Salable Form for Tender Document**

Job No. ....

The required fee of tender form has been deposited in \_\_\_\_\_ Bank A/c No. \_\_\_\_\_ RTGS and the scanned copy of UTR receipt with Transaction Id is being enclosed with E-tender documents. If the copy of UTR receipt is not uploaded with the E-tender the tender shall be rejected.

DETAILS OF EARNEST MONEY ATTACHED

The required amount of Earnest money has been deposited in \_\_\_\_\_ Bank A/c No. \_\_\_\_\_ RTGS and the scanned copy of UTR receipt with transaction Id is being enclosed with E-tender documents. If the copy of UTR receipt is not uploaded with the E-tender the tender shall be rejected.

BIDDER





#### **10.14 Form 14: Bid Offer/ BOQ (Format)**

To,  
Executive Director  
Noida Metro Rail Corporation (NMRC) Limited  
Block-III, 3<sup>rd</sup> Floor, Ganga Shopping Complex  
Noida -201301,  
District Gautam Budh Nagar, Uttar Pradesh

***THIS FORM IS NOT TO BE FILLED. THE BIDDERS ARE REQUIRED TO FILL THE FINANCIAL PROPOSAL IN XLS FORMAT AFTER DOWNLOADING THE FORM FROM THE E-PROCUREMENT WEBSITE FOR THIS TENDER DOCUMENT***

**Sub: Implementation of Audio Video System at NMRC Auditorium and Meeting room.**

Dear Sir,

I/we have read and examined the RFP document, general terms and conditions.

I/we hereby quote for the Total Price for Audio-Video Equipment on DDP (Delivered Duty Paid) basis with CAMC of 3 years as specified below, payable by NMRC.

Note:

- a. The Bidder with the lowest quoted cost for the total Audio Video equipment to be supplied at NMRC Auditorium at NMRC depot and NMRC meeting room at NMRC office at sector 29, Noida with CAMC of 3 years in the financial quote (L1 bidder) shall be selected for the award of contract.
- b. Tenderer will take extended insurance cover for a period up to 3 months beyond the date of delivery at ultimate consignee site
- c. The Total Amount to Be Quoted by Bidder (INR) shall be filled in figures and words.
- d. The Financial Bid submitted is unconditional (inclusive of all taxes including, duties, levies, etc. as applicable **except GST**) and fulfills all the requirements of the TOR Document. **GST shall be applicable as per prevailing rates.****
- e. We have completely read and understood the Bid Document. The Financial Tender submitted is unconditional and fulfills all the requirements of the Tender Document.

We understand you are not bound to accept any Proposal you receive.

---

Signature and Name of the Authorized Person

\_\_\_\_\_

NAME OF THE BIDDER AND SEAL

**10.15 Form 15: MAF (Format)**

**MANUFACTURER'S AUTHORIZATION (MAF)**

**MAF Letter Format (On OEM Letter head with seal)**

Date: \_\_\_\_\_

To,

\_\_\_\_\_  
<<< NAME OF CLIENT/ORGANIZATION>>  
\_\_\_\_\_  
\_\_\_\_\_

**Subject:** Manufacturer's Authorization Certificate

**Tender Ref.:** << PLEASE SPECIFY SPECIFIC TENDER REF.NO.>>

Dear Sirs,

This is with reference to the above mentioned Tender.

We hereby authorize <<NAME AND ADDRESS OF INTEGRATOR>> to offer our range of product in their tender bids. Being authorized <<NAME AND ADDRESS OF INTEGRATOR>> may make techno-commercial and commercial proposal for this tender.

Upon being awarded the work <<NAME AND ADDRESS OF INTEGRATOR>> are authorized to install and commission our range of products falling under <<SECTION/PRODUCT CATEGORY>> of this tender.

We as Original Electronic Manufacturers will provide all the techno-commercial and service support necessary to <<NAME AND ADDRESS OF INTEGRATOR>>for this project during the commissioning phase of the equipment's and until hand-over.

We also confirm that the product support would be available during the warranty period of 12 months and for at least five years thereafter.

Thanking and assuring best of our services at all times.

Yours faithfully

(Seal & Signature)

## 10.16 Checklist

The following check list is intended to help the tenderers in submitting offer which are complete. An incomplete offer is liable to be rejected. Tenderers are advised to go through the list carefully and take necessary action.

S.No.	Particulars	Attached - Yes	Attached - No	NA
1	Bid Processing Fees			
2	Earnest Money Deposit			
3	10 Appendices and Forms 10.1 Form 1: Letter of Proposal Submission			
4	10.2 Form 2: Firm Details			
5	10.3 Form 3: Capability Statement			
6	Form 4: Work Experience			
7	Form 5: Financial Capability Details			
8	10.6 Form 6: Memorandum			
9	Form 7: Undertaking - 1			
10	Form 8: Undertaking - 2			
11	Form 9: Proforma for Corporation from Manufacturers			
12	Form 10: Power of Attorney			
13	Form 11: Final Acceptance Certificate from Consignee			
14	Form 12 : Final Acceptance Certificate			
17	Form 13: Declaration of Refund of Earnest Money			
18	Form 14: Bid Offer/ BOQ (Format)			
19	The name and address of the Indian representative			
20	The precise relationship between the foreign manufacturer /principals and their Indian representative			
21	The mutual interest which the manufacturer /principal and the Indian representative have in the business of each other			
22	Foreign Tenderer has to submit a certificate that bidder is not having any Commission Agent in India and no agency commission will be paid, otherwise it shall be sufficient ground for rejecting of his offer. Indian			

S.No.	Particulars	Attached - Yes	Attached - No	NA
	representative should also mention Income tax permanent account number and certification of registration of OEM and registration of Indian representative.			
23	Certificates /documents indicating for Past performance of last 7 years.			
24	Copy of GST registration			
25	NOA showcasing experience of at least 7 (Seven) years of Audio-Video System, Video conferencing system.			
26	Detailed technical description of each of the equipment offered			
27	Documents for installation details etc.			
28	Details regarding power supply equipment such as UPS, inverter			
29	Manual for operation and maintenance of the equipment supplied			
30	Details of test accessories and test facilities provided along with write up testing and troubleshooting procedures. Technical literature of equipment to be supplied, along with the supply of materials.			
31	All necessary software/ Originals CD/DVDs/USBs which are part of technical equipment			
32	Guarantee/Warranty certificate to include the One year DLP period			
33	List of consumable's and spare parts per equipment			
34	A copy of the Annual Reports (Profit and Loss Account and Balance Sheet) for the last 3 (Three) Financial Years of Bidder (and the Manufacturer, in case the Bidder is the Representative)			
35	A copy of current valid ITCC (Income Tax)			



S.No.	Particulars	Attached - Yes	Attached - No	NA
36	Certificate for ISO / CE/ EUR 1			
37	Quality Control Plan			
38	Any other document asked by the Purchaser if submitted, specify the documents Or Any other document which the Tenderer considers relevant			