

BIDDING DOCUMENT – REQUEST FOR PROPOSAL

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For

**Turnkey Work of Design, Supply, Installation,
Testing and Commissioning of 3D Projection
Mapping Shows Including Related Civil,
Mechanical, Structural & Electrical Work**

AT

Amaravathi, Guntur District, Andhra Pradesh, India.



Volume 2 – Scope of Work and Eligibility Criteria

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Table of Contents

1. Scope
 - 1.1 Basic Requirements
 - 1.2 Guide Lines
2. Eligibility Criteria
3. Technical Specifications with approved makes
4. Basic Bill of Quantities
5. Deliverables and Payment Milestones

1. Scope of work:

The Scope of work would include: Research, Conceive, Visualization & Production of Design, Supply, Installation, Testing and Commissioning of 3D Projection Mapping Shows Including Related Civil, Mechanical, Structural & Electrical Works.

The listed components are the general guidelines for the solution. The turnkey project to be setup must comprise of state of the art of hardware equipment and software with collectively offering high uptime. The project is to be completed in **180 days'** time from the date of issuance of work order. The project includes the major components as listed below:

Research, Conceive, Visualization & Production of the Spectacle including Octaphonic surround by the bidder

- Recital artist will be arranged at bidder cost
- **Script, theme and Sound effects presentation and selection**
- Mixing, Programming and Art Production by the Bidder
- **Single or Multiple Scripts and Shows**
- The duration of content should not be more than 30 minutes.

a. Basic Requirements:

Project related required Civil, Structural, Mechanical, Structural and Electrical Work to be carried out by the bidder

- Related props installation for required technologies.
- UPS power protection to hi-end sensitive products.
- **Availability of Diesel Generator on Power Failure. (Not in the scope of Bidder)**
- Solid state control system.
- All other project design base items.
- Electric power connection, distribution, lighting and cabling with no loose cabling contacts. All contacts shall be linked using modular connectors of recommended rating etc.

- All Civil, Structural, Mechanical Works related to Project.
- Research and designing show concept.
- Visualizing & Dramatization of the spectacle recital in Telugu and English language.
- Content and Art production.
- Total voiceover.
- Octaphonic surround mixing, Programming and Art Production.
- Arranging music (original score), recording, mixing, re-mastering.
- The duration of content should not be more than 30 minutes.
- Final system integration & soft commissioning of the project.

Sound Reinforcement System by Bidder:

- Sufficient speakers with only Poly urea coated for outdoors permitted accompanied by polyurea coated sub woofers. Power Amplifiers & processors, microphones.
- Content be produced with Octaphonic surround sound with capacity of 105db SPL.
- Required hi-end systems for professional show sound performance.
- System Control Room to be planned and commissioned by bidder.
- Seating Gallery space will be provided by APTDC Ltd
- Promos/show clips etc to be provided by the bidder

The above-mentioned requirements for the show are indicative and bare minimum; however, bidder has liberty to offer the best of industry installation. Complete system installation design should be fool proof & protective against corrosion, dust, rain water and electric leakage current etc.

b. Guide Lines:

1. Civil, Structural, Mechanical, Structural & Electrical Works related project will be responsibility of bidder

- Bidder to visit the site before submitting offer at their own expenses.
- Necessary arrangement to be designed & executed.
- Required setup for power distribution with relative cabling etc.
- Supply and providing required back up power to the spectacle system.
- For approval purpose, related complete layouts to extent of project.

2. Content and Art Production:

- Research and concept towards the 3D Mapping to be implemented in consultation with APTDC Ltd
- Dramatization of the script in first language, seeking approval from the appropriate authority & in consultation with APTDC LTD.
- Recital Artist will be arranged by bidder.
- Bidder should arrange music (original score), recording, mixing, re-mixing, etc.
- Bidder will do the final production.
- Visualizing the content as per the concept.
- Creating the content (Should not differ from History)
- The duration of content should not be more than 30 minutes.
- All content must get approval from APTDC Ltd
- Submission of necessary documents in form of hard/softcopies.

3. Control room: (Scope of bidder)

- Bidder to visit the site before submitting RFP Document offer at their own expenses.
- Layout and plans of viewer's gallery and control room should be submitted by bidder for approval.
- Control Room to be constructed by the Bidder.

4. Languages

- Translation of dramatized show scripting Telugu & English language only.

- Arrange music (original score), recording, mixing, re-mixing, and mastering.

5. Hardware

- Procurement of Hardware as per the details submitted during presentation & as per the concept conceived and proposed BOQ.
- Proper installation of the Hardware including all associated works to be completed in schedule time.
- Hardware shall be installed without damaging any structure, for which, prior approval shall be taken from APTDC LTD.

6. Production, Programming System, Integration soft commissioning in consultation with APTDC LTD by the bidder.

- Transferring the voice-over and content generated in the suitable format.
- Programming and production of the content along with the voice-over.
- Final system integration for soft commissioning of the project as per presentation.

7. Any other related work pertaining to the show not specified/mentioned here in above is in scope of bidder

8. Modifications/ Alterations:

After the show is soft commissioned, the same will be reviewed by the APTDC Ltd. Suggestion in the show from APTDC LTD, the same need to be incorporated before the show is finally commissioned.

9. OPERATION & MAINTENANCE:

- a) This show to be scheduled between 6 PM to 8 PM.
- b) The power supply for the show will be provided by APTDC Ltd.

10. Standby Power: UPS/ Invertors:

- Bidder has to arrange for standby power facilities by way of installation of UPS, inverter for Computer and related electronic equipment, for other APTDC Ltd shall arrange Diesel Generator for flawless running of the show, in case of power failure. Bidder has to work out carefully the total electrification, cabling, change over switch arrangement for the show equipment. Bidder should consider UPS for all the hardware installation for receiving the fine power.

11. Life of Components

- The implementation of the project is of permanent nature & all the components are expected to have life of not less than 7 years except routine wear and tear. The defect liability of the bidder will be for 2 years towards all electronic equipment.

2. Eligibility Criteria:

The bidders need to provide necessary documentary evidence against the entire criterion mentioned below which will make them eligible for this assessment. In case the bidder fails to comply with the points in eligibility criteria assessment, their bids will not be considered for further evaluation:

(i) Any Bidder who intends to participate in the tender process must satisfy following basic eligibility criteria:

Sr.No.	Qualification Clause	Marking
1	The bidder or Consortium of Bidders should have at least done one Government Projects in last 3 FY	Basic Eligibility
2	The Bidder should have executed more than two 3D Projection Mapping Shows in Last 3 FY	Basic Eligibility

Notes:

- Please provide documentary proof to fulfill the above mentioned criteria
- Bids without any documentary proof shall not be considered
- Bidders who have the minimum required experience shall only be considered for further process. The Bidders who do not have basic eligibility

shall be disqualified at this stage; their Bids will not be opened and shall be returned along with the Bid Security.

(ii) Financial proposal of any Tenderer will come under the purview of consideration only if the criteria mentioned below are fulfilled.

- a. Production of Completion Certificate (required if Project value is not mentioned in Completion Certificate) for single work of similar nature executed within last 3 years (to be determined from the actual year of completion, considering current financial year as Year 1). Amount put to tender in such Completion Certificate(s) should be at least 20% of the amount of tender of work in which the Tenderer intends to participate.
- b. The minimum turnover from business (Similar main nature of Work, Upgradation of any Existing show, SMPTE Controlled Show, Intelligent Dynamic/Specialised programmable show as applicable) in any of the last 5 (Five) years should be at least 30% of the amount of tender of works in which the Tenderer intends to participate.
- c. Applicant should have also implemented/ implementing in any single work of Installation, Operation, and Maintenance of a similar project under any governmental agency for duration of 5 years.

(iii) Completion Certificate

Completion Certificate should contain

- (a) Name of work,
- (b) Name of the client,
- (c) Amount put to tender,
- (d) Schedule month and year of commencement and completion as per work order, and
- (e) Actual month and year of completion.

Such Certificates are to be countersigned by the concerned Executive Engineers / Consultant / Project Management Consultants of the concerned Department.

Completion Certificate of work executed in other Departments of State Government or Public Sector Corporations
(The work order copies will not be considered as experience)

(iv) One similar work executed successfully with APTDC Ltd or any government body is a must to qualify.

Particulars requirement for similar nature of work

Works of similar nature, apart from having tender value of at least 20% of the amount put to tender for each of the serial of works in the instant NIT, should further have the following physical execution of quantities stipulated against each work as illustrated below. The Tenderer should work out and put the data in the table below in accordance with the BOQ of the work the Tenderer intends to participate and submit the project details during participation in this tender.

SI No	Description of Project (Name & Work)	Requirement
1		At least 50% of the value of similar nature of work, executed not earlier than 5 years from the year of Publication of this tender.
2		
3		
4		
5		

- **The Vendors must be certified and authorized by the main principal company they are representing or the OEMs they are proposing the equipment with a certificate for the same from the OEM is a must. The applicants bid shall be rejected in case the OEM certificate is not furnished along with Technical Bid**

- A declaration to start work at site and completion within the timeframe.
- The bidder shall be held to have visited the sites examined the nature thereof, perused the tender requirements and to have made himself thoroughly acquainted by his own independent observation and enquiries with the nature, position, extent and practicality of the works, means of access, storage area for material and all other matters which can in any way influence his tender price, as no monetary or other claims made by the tenderer on the grounds of want of knowledge/information of any or all of the aforesaid matters will be entertained. The costs of visiting the site shall be at the bidder's own expense. The bidder before tendering must satisfy him with the quantities of required material, accommodation as may be required and no claim subsequently on account of ignorance shall be entertained. The contractor shall be deemed to have inspected and examined the site to the nature of work, general arrangement required for execution of work, contingencies and other circumstances which might influence or affect his price. The contractor shall provide everything for completion of the work successfully like labour, material, equipment and other accessories required for completion of the work as per Client/Consultant specifications and as directed by Engineer-in-Charge which might not be part of the actual BOQ. The agency must produce OEM certificate for the main components for the brands mentioned in the RFP.

3. Technical specification

Sr. No.	Description of Item	Technical specification	Proposed Make
1	Projector: Christie Roadster wu20kj 20000 lumen projector with required lens	3DLP projectors. compatible with multiple lens. low maintainance, Dust-sealed engine. Illumination 3.0kW Xenon bubble lamp module resolution : 1920 x 1200 WUXGA Brightness: 20,000 center lumens 3 years limited warranty	Christie, Panasonic
2	Media Server : 1 Master plus 1 Slave	Intel I7 based system windows 10 pro OS 16GB DDR4 RAM Nvidia GPU with minimum 4 outputs supporting 7680x4320@60Hz 250GB SSD Primary drive 250GB SSD secondary drive motherboard supporting 1 gpu at x16 or 2 at x8 22 inch LED monitor	all components needs to be from high end brands like Asus, MSI, Gigabyte, corsair, coolermaster with minimum 2 years warranty
3	Backup Media Server full replacement backup (master plus slave)	Intel I7 based system windows 10 pro OS 16GB DDR4 RAM Nvidia GPU with minimum 4 outputs supporting 7680x4320@60Hz 250GB SSD Primary drive 250GB SSD secondary drive motherboard supporting 1 gpu at x16 or 2 at x8 22 inch LED monitor	all components needs to be from high end brands like Asus, MSI, Gigabyte, corsair, coolermaster with minimum 2 years warranty
4	Projection Mapping Software with License dongle, Brand: Coolux manager	Windows 10 compatible multi projector edge blending Live warping Control via MIDI, DMX ,OSC, Art-Net compatible devices. multiple video playback support. multiple video format support uncompressed and compressed one time license cost	Mapping software : watchout, coolux , resolume or similar

Sr. No.	Description of Item	Technical specification	Proposed Make
5	Projection mapping software: Cooluxplayer license	Windows 10 compatible multi projector edge blending Live warping Control via MIDI, DMX ,OSC, Art-Net compatible devices. multiple video playback support. multiple video format support uncompressed and compressed one time license cost	Mapping software : watchout, coolux , resolume or similar
6	HDMI Extender : HDMI to ethernet upto 100mtrs 4k compatible	HDMI to ethernet encoder with 4k support and upto 100 meters	Creston, extron, krammer or similar
7	Audio System Outdoor Speakers IP65 Loudspeakers, IP65 Subwoofers, Digital Signal Processor, Amplifier.	Audience 500-650, Party needs to design a good acoustic solution comprising of Speakers, subwoofers, digital signal processor, amplifier and has to be IP65 speakers for outdoor placement The solution needs to consider the speaker placement, wiring, clamps and stands, sound clarity, delay and level while designing	JBL, Bose, Yamaha, audiophony, amate or similar
8	Control Room Porta Cabin:	Custom Built, 8ft x 8ft, High Quality, Air Conditioned, with Dehumidifier	
9	Weatherproof Enclosure for Projectors:	Custom Built, Waterproof, Dust Proof, Ventilated when open, IP65 when locked (unit), Stairs for easy access, Protection Harness for climbing (set)	

Sr. No.	Description of Item	Technical specification	Proposed Make
10	UPS for 30 min show backup	nominal input voltage 230vexternal battery systemMulti-function LCD status and control consoleAudible and visible alarms prioritized by severityRemote communicationUPS capacity 30KVAback up time : 30 mins	Eaton, APC, microtek or similar
11	Projector control cables	UTP, CAT6	D-link & equivalent
12	Projector power cable plus electrical (MCB, DP box etc)	3 core copper wires for projector, MCB, DP box	RR Kabel, Avocab, Finolex, Schneider, Legrand,
13	Projector video signal cables	UTP CAT6	Dlink,digilink, kramer
14	IPAD for remote show trigger	9.7 inch, 32 gb, wifi	Apple
15	LAN switch	Gigabit LAN, Managed, 16 Port	Linksys, Dlink, Netgear or similar
16	Wifi router	N300 wifi router, wide range	TP link, Netgear or similar
17	Server racks	Metal server rack to placing the media server, amplifier, digital signal processor	Chief, Elixir racks

4. Basic Bill of Quantities

SR.NO.	PARTICULARS	QUANTITY
A	EQUIPMENT	
1	Projector: Christie Roadster wu20kj 20000 lumen projector with required lens	4 nos
2	Media Server : 1 Master plus 1 Slave	1 no
3	Backup Media Server full replacement backup (master plus slave)	1 no
4	Projection Mapping Software with License dongle, Brand: Coolux manager	1 no
5	Projection mapping software: Coolux player license	4 nos
6	HDMI Extender : HDMI to ethernet upto 100mtrs 4k compatible	8 nos
7	Audio System Outdoor Speakers IP65 Loudspeakers, IP65 Subwoofers, Digital Signal Processor, Amplifier.	1 Lot
8	Control Room Porta Cabin: Custom Built, 8ft x 8ft, High Quality, Air Conditioned, with Dehumidifier	1 complete set
9	Weatherproof Enclosure for Projectors: Custom Built, Waterproof, Dust Proof, Ventilated when open, IP65 when locked (unit), Stairs for easy access, Protection Harness for climbing (set)	1set
10	UPS 30KVA for 30 min show backup	1
11	Projector control cables UTP CAT6	1 Lot
12	Projector power cable 3 core copper plus electrical (MCB, DP box etc)	1 Lot
13	Projector video signal cables UTP CAT6	1 Lot
14	IPAD for remote show trigger	1 +1(spare) nos
15	Gigabit Managed LAN switch 16 port	1Lot
16	Wifi router	1Set
B	CONTENT	
1	Show Design & Concept Development, Show Production, Music, Shoot Duration: 20 minutes	As reqd
2	Technical supervision	As reqd
3	Installation & Training Support	As reqd
4	Show Programming & Integration	As reqd

The APTDC reserves the right to contract for all or a partial list of services offered in the proposal. The RFP and the Applicant’s proposal will become part of the contract between the Client and the Contractor. If the Contractor fails to execute a contract with the Client within 21 business days, the Client may elect to cancel the selection and award to the next highest-ranking applicant.

5. Deliverables and Payment Milestones

Sr. No.	Payment milestone	Percentage	Timeline
1.	APTDC approval of technical specification, Script with dramatized version with all details	10%	2 weeks from award of work/ agreement
2.	After completion of voice recording & music Generation visual and graphic related to the show by APTDC.	10%	4 weeks from subsequent approval of script.
3.	After receipt of hardware and equipment at Site as approved by APTDC and verification by the consultant/site in charge/Engineer	40%	6-8 weeks from award of work.
4.	After system integration trial run and soft commissioning of the system	20%	20 weeks from award of work
5.	On successful running after 3 months and submission of O & M	10%	
6.	On successful running after 1 years of installation	10%	