

**REPLY TO PRE-BID QUERIES IN RFP**

**Subject:** SELECTION OF DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF MULTIMEDIA LASER AND VIDEO SHOW ON WATER SCREEN WITH MUSICAL DANCING FOUNTAIN WITH LIGHT & SOUND AND ITS OPERATION & MAINTENANCE FOR 3 YEARS, AT RAJDHANI SAROVAR, SECTOR 19, NAYA RAIPUR, CHHATTISGARH, INDIA.

RFP No.: 17 /MF&LSP/EEC1 / CE (E) / NRDA / 2016-17Naya Raipur dated- 01/7/2017.

S. no.	As per RFP	Queries	Reply/Amendment	Reasons
[1]	<b>DATA SHEET</b>			
1	Project Implementation Time-120 days from the date of issue of work-order. Last date and time of Submission of bid- Up to 3:00 P.M. on or before 28/07/2017 Opening of Technical Bid- After 3:30 P.M. on 28/07/2017 in the office of the NRDA.	In view of the floating nature of the Fountain, all design parameters have to be considered. Also the control room design and detailing will have to be approved by your competent authority or committee hence, we request the completion date or Project Implementation Time to be 180 Days.	Project Implementation Time- <b>150 days</b> from the date of issue of work-order. Last date and time of Submission of RFP- Up to 3:00 P.M. on or before <b>05/08/2017</b> . Opening of Technical Bid- After 3:30 P.M. on <b>05/08/2017</b> in the office of the NRDA.	The work completion time has been increased to 150 days from 120 days considering duration of import from outside the INDIA.
[2]	<b>SECTION-I ; 1. INTRODUCTION</b>			
1	<b>1.1 Project-Location</b>	Please share us the Auto cad drawings for the further workings.	<b>AutoCAD file is attached.</b>	
2		Requested to upload the CAD file of the location Lake II with dimensions mentioned for clarity.	Uploaded.	
3	<b>1.2 Schedule of Selection Process</b> Last date and time of Submission of RFP- Up to 3:00 P.M. on or before 28/07/2017	Tender Submission Time extension required by another 20 days or to the best possible extent.	Last date and time of Submission of RFP- Up to 3:00 P.M. on or before <b>05/08/2017</b> .	
4	Opening of Technical Bid- After 3:30 P.M. on 28/07/2017 in the office of the NRDA.	Request to extend the last of date of submission by one weeks time, to make it on or before 03/08/2017.	Opening of Technical Bid- After 3:30 P.M. on <b>05/08/2017</b> in the office of the NRDA.	

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[3]	<b>2. INSTRUCTION TO BIDDER</b>			
1	<p><b>A. GENERAL</b></p> <p><b>2.1 General terms of RFP</b></p> <p>2.1.2 The Bidder may be an Individual, or a company, or a partnership firm, or a JV of individual/companies/partnership firms. In case of JV, a Memorandum of Agreement (MoA) between the JV partners indicating proposed role of each partner to be submitted.</p> <p>2.1.3 The Bidder should submit a Power of Attorney as per the <b>Format II</b>, authorizing the signatory of the RFP to commit the Bidder. In case of a JV the other partner shall also execute the Power of Attorney in favour of Lead Partner as per <b>Format –III</b>.</p>	Our company would like to participate in the tender in consortium with a reputed German company. In the tender document it is made mandatory to provide experience certificates for similar nature of work in only English language. Whereas in European countries there is no system of giving experience certificates. Hence we request you kindly allow us to provide reference videos of our work along with some supporting documents. We request you to allow our German partner to provide self-attested experience certificates in European language.	For other than INDIA / outside country partner, some proof of work completion having done the work is needed. In case the completion certificate is not possible, the copy of work-order (Job-order), agreement and proof of payment shall be enclosed to prove the execution of work by the bidder.	
2		To get quality product and services it is recommended <b>not</b> to consider Chinese companies in the JV.	<b>No change.</b>	
3	<p><b>2.2 Validity of RFP</b></p> <p>The RFP submitted by the Bidder shall be valid for 120 Days from the date of submission of RFP.</p>	It is recommended to increase the validity of tender up to <b>180 days</b> from 120 days.	<b>No change.</b>	
4	<p><b>2.3 Bid Security</b></p> <p>2.3.1 The Bidder shall furnish as part of its RFP, a EMD of Rs. 15,00,000/- (Rupees Fifteen Lakhs only) in the form of a Demand Draft issued by a Scheduled Bank in India, drawn in favour of the CEO, Naya Raipur Development Authority (NRDA), payable at Raipur / Naya Raipur (the "Demand Draft"). The EMD can also be in the form of Bank Guarantee issued by Nationalised Banks or Scheduled Commercial Banks in the prescribed format. The Authority shall not be liable to pay any interest on the EMD so made and the same shall be interest free. Format of Bank Guarantee is provided in Format-X.</p>	Who are Registered with NSIC & having MSME Registration, are exempted from the Cost of the tender and EMD payment in all Government tenders, if copy of NSIC Certificate is enclosed.	<b>No change.</b>	
5	<b>2.7 Amendment of RFP Document</b>		<b>Amended.</b>	

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S. no.	As per RFP	Queries	Reply/Amendment	Reasons
[4]	<b>3. EVALUATION OF RFPs &amp; ELIGIBILITY CRITERIA</b>			
1	<p><b>3.3 Minimum Eligibility Criteria</b> The bidder must qualify the following eligibility criteria. In case of a Joint Venture (JV) refer clause 3.3.4 for additional qualification criteria. The Bidder / Lead Partner of the JV should be an individual / Organization / Partnership Firm incorporated in India.</p> <p>a. The Bidder shall be INELIGIBLE to submit a RFP, if the organization or in case of a Joint Venture, any of its constituents has been barred or blacklisted by any Central and/or State Government in India.</p>	<p>Our company would like to participate in the tender in consortium with a reputed German company. In the tender document it is made mandatory to provide experience certificates for similar nature of work in only English language. Whereas in European countries there is no system of giving experience certificates. Hence we request you kindly allow us to provide reference videos of our work along with some supporting documents. We request you to allow our German partner to provide self-attested experience certificates in European language.</p>	<b>No change.</b>	
2	<p>b. Persons who are individually or institutionally in any manner involved with the selection/ screening process of the EOI /RFP Document and employees of NRDA / Naya Raipur Development Authority (NRDA), Raipur shall not be eligible for applying.</p>	<p>It is recommended to <b>add</b> the following paragraph so that JV Lead member is having relevant experience: <i>The Bidder / Lead Partner of the JV should be an individual/Organization/ Partnership Firm incorporated and a manufacturer of musical fountain in India. Necessary documents to be submitted which should substantiate that the bidder is a manufacturer of musical fountain in India. The lead partner should be in existence in India for period of 15 years from the date of the tender. This should be substantiated through copy of Certificate of Incorporation.</i></p>	<b>Not accepted.</b>	
3	<p><b>3.3.1 Financial Criteria</b> The Applicant shall have a minimum Net Worth of INR 25,000,000.00 (Rupees Two crore fifty lakh only) at the close of the preceding financial year (FY 2015-16 or 2016-17). OR The Bidder should have an annual average turnover of minimum INR 10,00,00,000 (Rupees Ten Crores only) in the last three years (Financial Year 2013-14, 2014-15, 2015-16) as per audited annual report and balance sheet statements and certified by the Statutory Auditor. <i>Note: Net worth shall mean (subscribed and paid up equity + reserves) less (revaluation reserves + miscellaneous expenditure not written off + reserves not available for distribution to equity shareholders)</i></p>	<p>a) For assessing the capability and financial strength of the bidder in executing such a project, the necessary average turnover should be revised to <b>Rs 20 Cr</b> instead of Rs 10 Cr and minimum Net Worth to <b>Rs 8 Cr</b> instead of Rs 2.5 Cr.</p>	<p>The Applicant shall have a minimum Net Worth of INR 25,000,000.00 (Rupees Two crore fifty lakh only) at the close of the preceding financial year (FY 2015-16 or 2016-17). OR The Bidder should have an annual average turnover of minimum INR 8,00,00,000 (Rupees Eight Crores only) in the last three years (Financial Year 2013-14, 2014-15, 2015-16) as per audited annual report and balance sheet statements and certified by the Statutory Auditor. <i>Note: Net worth shall mean (subscribed and paid up equity + reserves) less (revaluation reserves + miscellaneous expenditure not written off + reserves not available for distribution to equity shareholders)</i></p>	

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S. no.	As per RFP	Queries	Reply/Amendment	Reasons
4	<p><b>3.3.2 Technical Criteria:</b></p> <p>a) The Bidder should have successfully completed one eligible projects of 10.00 Cr in last 5 years from Bid Due date. OR</p> <p>b) The Bidder should have successfully completed two numbers of eligible projects of 4.0 Cr. each in last 5 years from Bid Due date.</p> <p><i>For the purpose of this RFP Eligible Projects would be deemed to include:</i></p> <p>(i) Supply, installation and commissioning of permanent attraction or temporary installations consisting of water fountain with synchronized dancing water effects with jets, seamlessly integrated with video projection or laser show.</p> <p>(ii) Operation and Maintenance of permanent attraction with musical fountain and multimedia laser show on water screen with a show time of at least 10 minutes every day in India or abroad for minimum 2 years.</p> <p>c) For a project to qualify as an Eligible Project under Categories a &amp; b above:</p> <p>i) It should have been undertaken as EPC or PPP project or similar basis for providing its output or services to a public sector entity.</p> <p>ii) The entity claiming experience should have held, in the company owning the Eligible Project, a minimum of 26% (twenty six per cent) equity during the entire year for which Eligible Experience is being claimed.</p> <p>iii) The entity claiming experience shall, during the last 5 (five) financial years preceding the Application Due Date, have (i) paid or received for development of the project (excluding the cost of land), and/ or (ii) collected and appropriated the revenues from users availing of non-discriminatory access to or use of fixed project assets, such as revenues from Musical Fountain, Laser or Multimedia show.</p>	<p>(a) <b>The pre-requisite criteria be amended to include projects over a 7 year window, and</b></p> <p>(b) <b>Price escalation of 10% per year be allowed to be applied, as is the standard norm in all such pre-qualifying criteria.</b> OR</p> <p>(c) <b>Since this tender is open to bidders from abroad who have FE billings, a, lower, PPP adjusted upper limit be specified for these projects for Indian Companies, to provide for price parity, in terms of purchase power terms.</b></p> <p><i>It is standard practice in all large tenders to provide a larger window for pre-qualifications, in order to get a larger number of companies to participate in the tender process, and seven year is the standard window provide.</i></p> <p><i>It may be noted that if the bid is open to International Bidders, then the values mentioned should be price-adjusted for the PPP (Purchase Power Parity) difference between the costs of products and services between such companies and the companies in India. World Bank publishes the table applicable for such value adjustments.</i></p>	<p>The Bidder should have successfully completed one eligible projects of 8.00 Cr in last 7 years from Bid Due date. OR</p> <p>The Bidder should have successfully completed two numbers of eligible projects of 4.0 Cr. each in last 7 years from Bid Due date.</p> <p>For ascertaining current value of work done 7% price-escalation per annum is added in work-done value.</p> <p><b>c) Same as RFP.</b></p>	
5		<p>Such high value projects are quite rare in India and takes time for completion. Keeping this in mind, it is recommended that NRDA revise the criteria as under:</p> <p><b>a) The Bidder should have successfully completed one eligible project consisting of a floating musical fountain of 90m length of Rs 9 Cr order value in last 10 years from Bid Due date.</b> OR</p> <p><b>b) The Bidder should have successfully completed two numbers of eligible projects of Rs 4 Cr each in last 10 years from Bid Due date.</b></p> <p><i>For the purpose of this RFP Eligible Projects would be deemed to include:</i></p> <p>(i) <b>Supply, installation and commissioning of permanent attraction consisting of floating musical fountain.</b></p> <p>(ii) <b>Operation and Maintenance of permanent attraction with musical fountain and multimedia laser and video projection show on water screen in India or abroad for minimum 2 years.</b></p> <p>c) It is recommended to delete this paragraph (c).</p>	<p>The Bidder should have successfully completed one eligible projects of 8.00 Cr in last 7 years from Bid Due date. OR</p> <p>The Bidder should have successfully completed two numbers of eligible projects of 4.0 Cr. each in last 7 years from Bid Due date.</p> <p>For ascertaining current value of work done 7% price-escalation per annum is added in work-done value.</p>	
6		<p>We request you to please amend evaluation criteria page no 14 point no 3.3.2 to modified as experience category from 5 years to 7 years as it enable more vendor to quote for the same and which also make healthy competition and good outcomes.</p>	<p><b>c) Same as RFP.</b></p>	

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S. no.	As per RFP	Queries	Reply/Amendment	Reasons
7	3.3.3-In case of Joint Venture (JV), the Bidder shall satisfy following criteria besides....	(v) <b>Editing</b> needs to be done to the paragraph as below to ensure that the JV partner is having relevant and substantial experience in similar projects: <b>(v) Lead Partner shall be an Individual /Organization/Partnership Firm incorporated in India. The lead partner should be in existence for period of 15 years in India from the date of the tender.</b>	<b>No Change.</b>	
8	<b>3.3.4. Bidders to submit following supporting Documents...</b> (i) Approved make of materials and specifications are mentioned in Section II of this RFP Document. The bidders will have to provide components / equipment in strict compliance with the manufacturer/makes/brand, list of which is provided in the specification in Section II of this RFP Document	“.....The bidders will have to provide components / equipment in strict compliance with the manufacturer / makes / brand, list of which is provided in the specification in Section II of this RFP Document . <b>Functionally equivalent or better products from reputed brand or by an OEM bidder, to be approved by the client will also be acceptable”.</b>	Approved make of materials and minimum specifications are mentioned in Section II of this RFP Document. The bidders will have to provide components / equipment in compliance with the manufacturer / makes / brand, list of which is provided in the specification in Section II of this RFP Document.	There are many products / models which are functionally superior or are much-better supported with spares / repairs in the country, which are not included in the list. By permitting functionally equal or superior products of reputed Brands or by the OEM bidder with a track record of installations, NRDA will be benefited financially and also in terms of long-term serviceability.
9		Request you to amend OEM certificate requirement to be submitted after finalisation of the vendor to avoid malpracticing in getting OEM certificates. Vendor who will be awarded he can easily submit OEM certificate as requested.	<b>(Format XII-A, specifying the details of Hardware considered as a part of the quote shall be submitted including the Specification and make by the bidder. This shall also include the ancillary items not given in the RFP Document but is required for the commissioning.</b> <b>Note: The RFP shall be not considered without the above details.</b> However the bidder can also provide equivalent or better material with prior approval of Authority. In addition to signing complete RFP Document, the bidder needs to provide unconditional acceptance of this by separately signing and submitting each page of the specification as a token of acceptance. The technical RFP as per Clause 3.3.4 shall be part of contract document.	

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S. no.	As per RFP	Queries	Reply/Amendment	Reasons
[5]	<b>3.3.5 Evaluation Criteria:</b>			
1	3.3.5.1-Min Avg Annual Turnover INR 10 CRORES in last 3 financial years	THE MAXIMUM MARKS to be awarded for such bidder having fulfilled Rs 10 Cr criteria must get 15 Marks. All other marks for lesser turnover must be less than 15.	Min Avg Annual Turnover INR 8 CRORES in last 3 financial years. For marks pl. see amendment.	
2	3.3.5.3-The Bidder should have successfully completed one eligible projects of 10.0 Cr in last 5 years from Bid Due date.  3.3.5.4-The Bidder should have successfully completed two numbers of eligible projects of 4.0 Cr. each in last 5 years from Bid Due date	<b>That this be changed to marks based on the 'number of projects' Musical fountain with Multi-Media components, and marks should be given for projects completed (showing the past record), as well as for projects under implementation (which shows the strong presence of the bidder in the market) . He request that 20 Marks be given for 4 completed projects &amp; 15 Marks be given 3 projects under implementation.</b> <i>This will exclude all Indian companies from scoring, full marks and is discriminatory. Clause (1) qualifies a company with Rs. 10 Cr for this tender, and this clause is not in line with the above turn-over limit. This should be made as main Pre-qualification criteria - one job of 10 Cr, with price escalation of 10% per year for 7 Year is to be permitted. Bidders should be also given marks for orders on hand in India--shows their commitment to continue to be a major player in the country for this line of business.</i>	The Bidder should have successfully completed one eligible projects of 8.00 Cr in last 7 years from Bid Due date. OR The Bidder should have successfully completed two numbers of eligible projects of 4.0 Cr. each in last 7 years from Bid Due date. For ascertaining current value of work done 7% price-escalation per annum is added in work-done value.  <b>c) Same as RFP.</b>	(A) Scores for past projects based on \$ Value for jobs executed abroad, against value of the jobs in India, for jobs that have a large service component is involved, will be discriminatory. If such scoring has to be done, then World-Bank suggested PPP (Purchase Power Parity) adjusted conversion rates have to be applied for such scores.
3			Amended. <b>Please See amendment as Annex-1.</b>	

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4	It is recommended to <b>Edit</b> the evaluation criteria to give due weightage to the experienced bidders as follows-	Amended.		Please See amendment as Annex-1.			
		No	Description			Maximum Marks	Marking Criteria
		1	Minimum Average Annual Turnover of INR 20,00,00,000 (Rupees Twenty Crore only) in the last three financial years			15	<ul style="list-style-type: none"> <li>• INR 20.0 to 22.0 Crore = 5 marks</li> <li>• INR 22.0 to 25.0 Crore = 8 marks</li> <li>• INR 25.0 to INR 30.0 Cr = 12 marks</li> <li>• More than INR 30 Crore = 15 marks</li> </ul>
		2	Minimum Net worth of minimum INR 8,00,00,000 (Rupees Eight Crore only) at the close of the preceding financial year (FY 2015-16 or 2016-17)			10	<ul style="list-style-type: none"> <li>• INR 8 Crore to INR 10 Crore = 3 mark</li> <li>• INR 10 Crore to INR 12 Crore = 5 mark</li> <li>• INR 12 to INR 15 Crore = 8 marks</li> <li>• More than INR 15 Crores = 10 mark</li> </ul>
		3	The Bidder should have successfully completed one eligible projects of floating musical fountain of 90m length of Rs 9.0 Cr in last 10 years from Bid Due date			20	<ul style="list-style-type: none"> <li>• 1 projects = 10 marks</li> <li>• 2 projects = 20 marks</li> </ul>
		4	The Bidder should have successfully completed two numbers of eligible projects consisting of musical fountain integrated with laser and video show on water screen of Rs 4 Cr. each in last 10 years from Bid Due date			15	<ul style="list-style-type: none"> <li>• 2 projects = 5 marks</li> <li>• 3 Projects = 10 marks</li> <li>• 4 Projects = 15 marks</li> </ul>
		5	Operation and maintenance experience of musical fountain with multimedia laser and video projection show on water screen for a period of 2 year			15	<ul style="list-style-type: none"> <li>• 2 years = 10 marks</li> <li>• 3years = 15 marks</li> </ul>
		6	Presentation to NRDA on approach & methodology, proposed design and showcasing past experience on similar project.			25	Scores will be given by an internal committee appointed by NRDA on following parameters <ul style="list-style-type: none"> <li>• Understanding of the project – 5 marks</li> <li>• Proposed design – 15 marks</li> <li>• Videos or images showcasing past experience – 5 marks</li> </ul>
		<b>Total</b>		<b>100</b>			

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5	<p><b>3.3.5.5 : Operation and Management experience</b> of musical fountain with multimedia laser or video projection show on water screen with minimum operation and maintenance fee of INR 1.0 Crore / year.</p>	<p><b>The Value limit of Rs. 1 Cr should be dropped from this. 15 Marks should be given for companies that have executed or is currently executing 5 or more Operation / AMC services for more than two years for any of its own past installations of musical fountains (with or without Multi-Media, since this score is meant to reward bidders with long-term commitment and Multi-Media is a new add-on).</b></p> <p>There is an error in this clause : Marks for more than 5 jobs is shown as 6 Marks – this should be 15 Marks.</p> <p>This will again prevent any Indian company from scoring full marks – the AMC charges of Rs. 1 Cr per year is never paid in any Indian contract and will be adverse clause for NRDA.</p> <p>Successful bidder will charge AMC in this range, which is unheard of in Indian context. In fact, NRDA should give negative weight for companies that charge high for AMC – Those bidders who provide reliable and redundant design should be ready to take it at reasonable AMC charges.</p> <p>We request that the this limit for AMC should be removed and weights be given to the number of years of AMC that the bidder has been able to win the AMC. Showing the commitment of the bidder for their projects.</p> <p>There is an error in this clause : Marks for more than 5 jobs is shown as 6 Marks – this should be 15 Marks.</p>	<p>Amended. <b>Please See amendment as Annex-1.</b></p>	<p>AMC charges of Rs. 1 Cr per year is untenable in Indian context, since entry charges in India is much lower as compared to that possible abroad. AMC charges of Rs. 1 Cr ( or installations that require such charges) will make this project commercially unviable. In fact, NRDA should give negative weight for companies that charge high for AMC – Those bidders who provide reliable and redundant design should be ready to take it at reasonable AMC charges.</p>
6		<p>Request to consider the no of years of experience in maintaining such projects as O &amp; M is a important criteria. Hence award maximum years of experience i.e 5 years = 15 marks, instead of no. Of projects. It is a request.</p>	<p>Amended. <b>Please See amendment as Annex-1.</b></p>	
7	<p><b>3.3.5.6-Presentation to NRDA on approach &amp; methodology, proposed design and showcasing past experience on similar project.</b></p>	<p><b>design of the proposed fountain should be given at least 35 Marks , consisting of separate Marks for features that will make the fountain operation available even under single point break-downs, eco-friendly, sustainable and serviceable.</b></p> <p><i>Proposed design is assigned only 15 Marks – this is very low, and this means that, even with a basic design ( even if it is given zero marks) will still qualify for financial bid opening, if they have ‘past experience’ that gives them the score of 70, and if they become L1, they will win the order and NRDA will be the loser, with a low end design to price it low and a higher AMC cost, to recover it – The Proposed Design should be given minimum of 35 Marks to avoid this anomaly.</i></p>	<p>Amended. <b>Please See amendment as Annex-1.</b></p>	<p>Proposed design is assigned only 15 Marks – this is very low, and this means that, even with a basic design ( even if it is given zero marks) will still qualify for financial bid opening, if they have ‘past experience’ that gives them the score of 70, and if they become L1, they will win the order and NRDA will be the loser, with a low end design due to lower price . The lower show-value , from a low priced design will lower the show-value of the project ,and make the project commercially unviable.</p>



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[6]	<b>3.4 Technical RFP</b> <b>3.4.1 Contents of Technical RFP</b>			
1	<b>I. Approach and Methodology</b> The Bidder must submit the detailed approach and methodology which shall include the Understanding of the project, Approach as well as methodology and the design on the basis of requirement given in this RFP Document.		No change.	
2	<b>II. Project Design</b> The Bidder shall submit the complete drawings in A3 size of the project including but not limited to fountain design, electrical layout, plumbing layout, location of floating projector. In addition to the above the Project design shall comprise, including but not limited to, the following:		No change.	
3	<b>III. Work Schedule</b> The total time frame for completion of the project including successful commissioning is 120 days from the date of execution of contract agreement. The Bidder shall submit the fortnightly schedule of the project right from the date of execution of contract agreement till the successful commissioning of the project. This work schedule shall be the draft milestones to be achieved for the project. The successful bidder has to submit its detailed plan, to the satisfaction of NRDA, for implementation and commissioning of the project before the execution of contract agreement.	<b><i>The total time frame for completion of the project including successful commissioning to be changed to 180 days from the date of execution of contract agreement instead of 120 days</i></b>		
4	<b>IV. Details of Proposed Equipment:</b> (Format XII-A, specifying the details of hardware considered as a part of the quote shall be submitted including the specification and make by the bidder. This shall also include the ancillary items not given in the RFP Document but is required for the commissioning, Note: The RFP shall be not considered without the above details).		No change.	
5	<b>3.5 Selection-Process</b>	To assess the experience of the bidders in the field of floating fountain technology and to get a weightage for a comprehensive credentials achieved by the bidders it is recommended to <b>Delete para (i) and add the QCBS evaluation criteria as below:</b> <u>Net Score calculation</u> The Net Score achieved by the bidders shall be calculated based on the Technical score obtained by them and price offered by them as per the financial bid format provided in this tender. The weightage assigned to the Technical Bid shall be 0.80 and that to the financial bid shall be 0.20, however it is expressly clarified that the financial bid of bidders achieving a score of less than 70 in the technical evaluation shall not be opened and shall not be considered for calculation of Net Score. The details of calculation are provided below: I. The technical score obtained by the bidders – ST II. The lowest financial bid received among the bidders – FL III. The financial bid of the bidders whose Net Score is to be evaluated – FC Then, the Net Score obtained by the bidder shall be: $\text{Net Score} = (ST \times 0.80) + \{(FL/FC) \times 100\} \times 0.20$		

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**Subject:** SELECTION OF DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF MULTIMEDIA LASER AND VIDEO SHOW ON WATER SCREEN WITH MUSICAL DANCING FOUNTAIN WITH LIGHT & SOUND AND ITS OPERATION & MAINTENANCE FOR 3 YEARS, AT RAJDHANI SAROVAR, SECTOR 19, NAYA RAIPUR, CHHATTISGARH, INDIA.

S. no.	As per RFP	Queries	Reply/Amendment	Reasons
[7]	<b>SECTION-II; TERMS OF REFERENCE (TOR) / SCOPE OF WORK</b>			
1	<b>1. Water Installation Basic Requirement:</b> A] Floating Mechanical Dredger B] Weed Remover Vehicle	<b>Editing for make of material as below suggested-</b> <i>The fountain system shall be produced out of aluminium alloy/galvanized steel. Also pumps, have to be of reputed make. Nozzles can be made of either brass/ bronze/steel.</i> <i>The system shall work with a flexible set up. We require submersible pumps which have to be fully controllable. All controllers need to provide the required safety for the usage of electricity inside water as per best practices and standards. NRDA will provide atleast 4m water depth inside the lake throughout the year</i> Para 3, NRDA to consider <b>deletion</b> of the item mentioning deploying Floating Mechanical Dredger, Weed Remover Vehicle from the bidders scope as this work as a fountain manufacturer is not specializing this field. Further the department under its disposal can make use of the equipments for maintenance of other sites/ lakes also.	No change. It is required during installation and O&M.	
2		Floating Mechanical Dredger needs to be supplied or we only need during installation. Canara Lighting Industries Pvt. Ltd., Mangalore	No change. It is required during installation.	
3		Weed cleaning equipment needs to be supplied or only required during installation and OM. Canara Lighting Industries Pvt. Ltd., Mangalore	No change. It is required during installation and O&M.	
[8]	<b>2. Component wise requirements, Specifications, Makes and/or Brands:</b>	It is recommended to <b>edit</b> the content as below to get the best suited make of material according to the design and specification <b>and also editing the "Note" below as hereunder-....</b>		
2	<b>2.10-LED LIGHTS</b> a) LED lights fixture comprising a minimum of 280 nos. of 24 volt LED lighting fixtures. b) Lighting package comprising of- 36 watt White-18 Nos., 54 watt Red /Yellow -64 Nos. and 54 watt RGB-198 Nos. c) LED Waterproof luminaries with array of high output of LEDs housed in compact enclosure of stainless steel body. d) Toughened glass with elastomer seal. e) Special plastic cable gland compact socket head fasteners and mounting bracket are all of stainless steel.	<b>This be amended to add -</b> <b>"The number of LED lights / and wattage per light are to be made minimum specifications. The actual numbers and the combination of wattages / numbers etc., will be dependent on the detailed design and should be permissible. Lights with specifications equal or better from other reputed brands / OEM Make by contractor, subject to certification by GOI lab, is also permissible".</b> <i>LED lights are an important component of value addition to the design. Restricting it to few models from a few manufacturers (many of them not specialist Fountain Light OEMs) can affect the show value.</i> <i>Lights are also one of the components that will call for replacement in full or in parts-OEM contractors with their own manufacturing facilities will be able to assure availability of spares for this critical items locally at reasonable prices, as compared to imported brands who do not sell spares and who will charge high for full replacement units.</i>	<b>Please See amendment as Annex-2.</b>	During the pre-bid meeting it has been discussed that using RBG LED light any type of colour can be produced and hence bidder should be given freedom to use the combination of RGB light as per proposal.
3	f) Light bodies should be IP68 certified by Govt. of India Test Laboratory. <b>Approved Make for LED lights- Philips-Martin / WIPRO</b>	We request you to please don't segregate lights specification in different categories, please make it RGB lights for 36w only. As per my view RGB lights itself can create any Colors as desired by fountain content . It also help us in maintaining/Service in long duration . We are using DMX here hence any colors can be achieved as per requirement. If we limit light quantity in specific Colors means we are limiting our scope of work.		
4		Lights In section A it been mentioned that 24W lights are needed but in Section B it's been asked to use 36 W and 54 W ...Please explain.		
5		Under Section II No. 10 Page 21, For lighting fixtures please include Canara Lighting Brand.		

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S. no.	As per RFP	Queries	a) Reply/Amendment	Reasons
6	<p><b>2. 11. Floating Structure.</b>                      ...A floating projection room of approximate size of 2.5 m x 2 m x 1.8 m height with AC Control Room of size 10mx3mx3m.                      Make: Waterworks, Wet Design</p>	<p align="center">-</p> <p><b>“ Any design that is structurally and functionally equal or superior and is designed by reputed structural engineering firm will be permissible, subject to approval from NRDA.”</b>  <i>This is purely a civil job. At present there a number of specialist firms , are available who provide different types of floating platforms in many Tourism Projects, including floating restaurants and markets and they use a variety of products that include inter-locking HDPE modules, GRP / FRP structures etc., and also provide more stable control room options.</i>  <i>The bidders should be allowed to suggest a good design option, based on design inputs &amp; drawings from some reputed specialist firm for this and the job may be executed, subject to NRDA's approval.</i></p>	<p>b) HDPE (Blue/Grey/Black color) / M.S., Galvanized Pipes /Stainless Steel as Floatation / water depth flexibility device for Fountains and Water-screen.                      c) Floats made of HDPE (High Density Polyethylene) / M.S., Galvanized Pipes /Stainless Steel interlocking cubes, should be modular in construction and can be interlocked to form a Floating /water depth flexibility structure of any shape.                      d) Floats /water depth flexibility are maintenance free, durable, and convenient and environment friendly.                      e) Anchoring system by steel wire ropes with proper anchoring system.</p>	<p>During the Pre Bid all the bidder has required to allow other materials for floating Structures and also for permanent project room.                      Considering the request and constrains of floating projection room , option of fixed projection room is also included.</p>
7		<p>We also suggest to make projection room in dry area for easy maintenance and easy accessible for future uses and support.</p>	<p>A Projection room (Floating or on bank of lake as approved by NRDA) of approximate size of 2.5 m x 2 m x 1.8 m height with AC Control Room of minimum size 10mx3mx3m ht.</p>	
8		<p>Request to amend, the usage of any suitable material for the float such as M.S, Galvanised Pipes , Stainless Steel etc. Instead of only HDPE.</p>	<p><b>Please See amendment as Annex-2.</b></p>	
9		<p>Based on the design, it is suggestive to have the Projector rooms on the banks of the opposite side of viewing audiences.</p>	<p>It is as required by the bidder.</p>	
10	<p><b>2.12-Show Control System</b></p>	<p>There is an error in the third column – it appears that a set of makes of Gensets are mentioned here as-“Jackson / Cummins / Kirloskar / Caterpillar / Sterling Wilson “- This may be corrected appropriately.</p>	<p>Paid electricity is provided by NRDA. But standby generator is preferred.</p>	
11	<p><b>2.14-Laser System</b>                      (a).Two sets of 5 watt laser (RGB ) white light beam projector with Pangolin software with</p>	<p>The two specifications in Column 2 &amp; 4 are conflicting – this may be clarified</p>	<p>Two sets of 5 watt RGB Laser-beam projector with Pangolin software with 60</p>	
12	<p>60Kpps scanner and 60 degree angle,                      (b) 20W RGB solid State white light system - Laser Animation/Kvant / Laser World/ Tarm/ HB Laser</p>	<p>As per technical specification requirement of laser projector is for 5 watts 2 nos but in make column it has mentioned as 20 watts. As per my experience 5w RGB laser is more than sufficient for such project. Hence please amend the same.</p>	<p>kpbs scanner and 60 degree angle, in compact case with forced air cooling.</p>	

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S. no.	As per RFP	Queries	Reply/Amendment	Reasons
13	<b>2.15-Video Projection System</b> a) 1 Nos. Video Projector with brightness 20000 ANSI Lumen (20000 center Lumen) b) 2 Nos. Original Lenses c) Flying frame for stacking d) 1 No. Media server with HD for various high resolution media contents with network ability	<p><b>“Any other projector of equivalent or better features and specifications from any reputed global brand, with more advanced technology / features will be permitted, subject to approval by NRDA.</b></p> <p><i>This is a very critical component-and we work with some OEMs who have incorporated the next generation technology in their range and this can significantly add value the project.</i></p> <p><i>It is significant to note that the configuration / combination of wattage etc., should be left to the detailed designs, subject to its compliance with the minimum values specified in the RFP.</i></p>	a) 1 Nos. Video Projector with brightness of minimum 20000 ANSI Lumen or more (20000 Center Lumen or more) OR equivalent. b) 2 Nos. Original Lenses. c) Flying frame for stacking. d) 1 No. Media Server with HD for various high resolution media contents with network ability.  Approved Make for Projector & Lens: Christie / Barco / Panasonic and equivalent.	Minimum 20000 lumen is fixed. As per the required of bidders increase of lumen as per the requirement of proposed is also given. In make also Panasonic and equivalent brand has been added.
14		amend as- a) 1 Nos. Video Projector with brightness 30000 ANSI Lumen Laser Light Source (30000 center Lumen) b) 2 Nos. Original Lenses c) Flying frame for stacking		
15		Same case for video projection , as per specification it require 20000 lumens but it is also mentioned 30000 lumens . Please make it to 20000 lumens everywhere.		
16		In make list column some of the make are mentioned as wet design and waterworks, they are foreign company who involved in executing the job and they are not equipment manufacturer. They execute similar type of project as we do hence make name should be modified accordingly.	Amended. <b>Please See amendment as Annex-2.</b>	
17		Equipment installed will be powered by electricity provided by NRDA or you will also need standby Generator.	Paid electricity is provided by NRDA. But standby generator is preferred.	
18		Please specify the nossal should be stainless steel or Brass. Suggestion would be from our end that is should be Brass to avoid corrosion	<b>Please See amendment as Annex-2.</b>	

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<b>S. no.</b>	<b>As per RFP</b>	<b>Queries</b>	<b>Reply/Amendment</b>	<b>Reasons</b>
19		Water Screen Size of Water screen is in two forms i:e A- 10 x30 m B- 15x50 m The size which you'll have mentioned i:e 11 x 33 m needs to be customized which would lead to increase of electricity	No Change.	
20		Hiring of Fountain programmer will be done from whose end.	By the contractor.	
21		Any particular reason we need 1no Delay this can disturb our program	No Change.	
22		How far is the Control unit from projector room	As per design.	
23		There are two option that can be used A - Visible computer fountain - In this, there are limitations only 8 songs can be used and in 30 min show there can be only two variations B- Live Fountain - There is no limitation customization can be done as in when needed. Only Multimedia laser content cannot be changed.	As per design. <b>Please See amendment as Annex-2.</b>	
24		Is it compulsory to use electrical valve	As per design.	
25		How much water pump can be used.	As per design.	
26		Makes of the BoQ items should be made liberal by providing provision to quote for equivalent makes.	<b>Amended.</b> <b>Please See amendment as Annex-2.</b>	

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S. no.	As per RFP	Queries		Reply / Amendment				
	<table border="1"> <thead> <tr> <th data-bbox="203 236 300 268">S. No.</th> <th data-bbox="300 236 539 268">Component Name</th> <th data-bbox="539 236 1238 268">Required Specification</th> <th data-bbox="1238 236 1854 268">Make / Brand</th> </tr> </thead> </table>	S. No.	Component Name	Required Specification	Make / Brand			<p><b>Amended. Please See amendment as Annex-2.</b></p>
S. No.	Component Name	Required Specification	Make / Brand					
1	3 D Digital Swing jets 360 Degree	a) Three direction digital swing jets nozzles made of stainless steel ( Minimum 8 Nos) b) Maintenance free system without belts and automatic positioning for vertical position c) Fast and wide range to offer a wide range of effects d) Set up within the show line instead of static fountain e) Minimum height of water - 12m f) Pumps of required type and capacity to achieve desired effect	a) Pumps- KSB/Texmo/ Kiloskar b) Pipes: Galvanised steel, Jindal/Bansal (Medium Class) c) Nozzle- Brass/Bronze/steel					
2	Ultra-Fast Action Jets on a designed pipe work	a) Minimum height of water- 16m; Minimum 55 nos. b) Nozzles made up of brass chrome plated and each provided with fast acting gun metal solenoid valve mounted on a galvanised steel manifold.	d) Pumps- KSB/Texmo/ Kiloskar e) Pipes: Galvanised steel, Jindal/Bansal (Medium Class) f) Nozzle- Brass/Bronze/steel Make- Wet Design/Waterworks/ premierword					
3	Ultra Fast Action Jets a ring with minimum 9.5 m Pitch circle diameter PCD	a) Ultra fast action jets with nozzles made up of brass chrome plated and each provided with fast acting gun metal solenoid valve and mounted on a galvanised steel manifold , with VFD pumps. (Minimum 24 numbers) c) Max height of water effect: 20 m	d) Pumps- KSB/Texmo/ Kiloskar e) Pipes: Galvanised steel, Jindal/Bansal (Medium Class) f) Nozzle- Brass/Bronze/steel					
4	<b>Arch Jets</b>	a) Water effects forming Archs (minimum <b>24 numbers</b> ) b) Minimum height of water effect : 16 meters	c) Pumps- KSB/Texmo/ Kiloskar d) Pipes: Galvanised steel, Jindal/Bansal (Medium Class) g) Nozzle- Brass/Bronze/steel Make- Wet Design/Waterworks/ premierword					
5	Water Screen Minimum. 11m high 33 m wide	a) Centre Fed Water Screen size- <b>11 m x 33 m.</b> b) Galvanised steel pipes & fittings c) Min. water transport volume for water screen – 490 m <sup>3</sup> /h d) Total capacity of pumps - 90 kW; Bidders may choose any combination of pumps to achieve the desired effect	e) Pumps- KSB/Texmo/ Kiloskar f) Nozzle- Brass/Bronze/steel Make- Wet Design/Waterworks/ premierword					
6	<b>Centre Jet</b>	a) Straight jet, delivering a water effect operated through VFD Pumps, Can also be operated during day time as an attraction. b) Minimum height of water effect : 30 meters	c) Pumps- KSB/Texmo/ Kiloskar d) Nozzle- Make- Wet Design/Waterworks/ premierword					
7	Sunburst effects	a) Water effect like sun (Minimum 2 Nos) b) Minimum jet height 5 m height	c) Water effect Nozzle- Brass/Bronze/steel Make- Wet Design/Waterworks/ premierword d) Pumps- KSB/Texmo/ Kiloskar					
8	<b>Aqua Pyrotechnic Flame Canon</b>	a) Aqua Pyrotechnic Flame Canon, (Minimum 4 numbers ) b) Minimum 6 m high	a) <i>Minimum 102 nos. of water effects</i> b) <i>End to end linier Span of water-effects 62m</i> c) <i>Nozzles made up of Brass, Bronze, Aluminum alloy, Make: Wet Design/ Waterworks/Premierworld</i> d) <i>Grid pipes - Non Corrosive Extruded Aluminium alloy</i> e) <i>Strainer- Stainless steel mesh filter,</i> f) <i>Connecting Pressure Manifold.-Galvanised Steel ,</i> g) <i>Feeder Pipes - Galvanised steel</i> h) <i>Total pump capacity for the entire musical fountain system: not less than 270hp, Make:KSB/Texmo/Kiloskar</i>					
9	<b>Aqua Pyrotechnic Mortar,</b>	a) Aqua Pyrotechnic Mortar (6 numbers) , b) Minimum 6 m high	a) <i>Minimum 102 nos. of water effects</i> b) <i>End to end linier Span of water-effects 62m</i> c) <i>Nozzles made up of Brass, Bronze, Aluminum alloy, Make: Wet Design/ Waterworks/Premierworld</i> d) <i>Grid pipes - Non Corrosive Extruded Aluminium alloy</i> e) <i>Strainer- Stainless steel mesh filter,</i> f) <i>Connecting Pressure Manifold.-Galvanised Steel ,</i> g) <i>Feeder Pipes - Galvanised steel</i> h) <i>Total pump capacity for the entire musical fountain system: not less than 270hp, Make:KSB/Texmo/Kiloskar</i>					

10	LED lights	<ul style="list-style-type: none"> <li>a) LED lights fixture comprising a minimum of 256 nos. of 12 volt LED lighting fixtures. 18 watt White-12 Numbers, 21watt Red /Yellow -64 Numbers , 21 watt RGB-174Numbers, 36 watt, 24V white 6 numbers. Light bodies should be IP68 certified by Govt. of India Test Laboratory.</li> <li>b) LED Waterproof luminaries with array of high output of LEDs housed in compact enclosure of stainless steel body.</li> <li>c) Toughened glass with elastomer seal.</li> <li>d) Special plastic cable gland compact socket head fasteners and mounting bracket are all of stainless steel.</li> <li>e) Light bodies should be IP68 certified by Govt. of India Test Laboratory.</li> </ul>	<i>Make Philips-Martin/WIPRO/Premierworld</i>
11	Floating Structure	<ul style="list-style-type: none"> <li>a) HDPE floats (blue / grey/black color) as floatation device for fountain and water screen.</li> <li>b) Floats made of HDPE (high density polyethylene) interlocking cubes, should be modular in construction and can be interlocked to form a floating structure of any shape.</li> <li>c) Floats are maintenance free, durable, and convenient and environment friendly.</li> <li>d) Anchoring system by steel wire ropes with proper anchoring system.</li> </ul>	<i>Make: Wet Design/ Waterworks/Premierworld</i> All civil work for Floating Structure & Projection Room, control room, etc. HDPE floats (blue color) as floatation device for fountain and water screen. Floats made of HDPE (high density polyethylene) interlocking cubes. They are modular in construction and can be interlocked to form a floating structure of any shape. These floats are maintenance free, durable, and convenient and environment friendly. Anchoring system by steel wire ropes with proper anchoring system. A floating projection room of approximate size of 2.5 m x 2 m x 1.8 m height with AC.Control Room of size 10mx3mx3m.
12	Show control system	<ul style="list-style-type: none"> <li>a) 1 no. Auto run ability show control system</li> <li>b) Fibre glass connection between controls and systems with back up connection</li> <li>c) High Performance Gigabit/Fiber Optic Ethernet Switch (managed), 8-port Gigabit Network/ 2-port along with compatible fiber and cable drum</li> <li>d) Audio Source min quality 44.1kHz stereo WAF format; digital audio player with SMPTE 25f/s TC interface</li> </ul>	<ul style="list-style-type: none"> <li>a) ShowCAD Artist/Sunlite Suite 2</li> <li>b) Fiber System: Rock Solid Technologies, RockLink, Fiberfox® EBC 1502 or better brand product with equivalent specifications</li> </ul>
13	Sound System	<ul style="list-style-type: none"> <li>a) Amplifiers: 6 numbers amplifier (500 W + 500 W)</li> <li>b) Speakers: 300 watt speakers x 8 numbers and 650 watt subwoofer x 4 Numbers</li> <li>c) 1 no. 32 channel mixer,</li> <li>d) Racks and Stands</li> <li>e) 2 nos. Cordless Mikes</li> <li>f) 2 nos. Handheld Mikes</li> <li>g) 2 nos. CD Player</li> <li>h) 1 no. DAC</li> <li>i) 1 no. Media Player</li> <li>j) 1 no. Snake</li> <li>k) 1 no. Delay</li> </ul>	<ul style="list-style-type: none"> <li>a) Speakers &amp; Sub woofers - JBL driver with customized enclosure</li> <li>b) Amplifiers – Crown/ QSC</li> <li>c) Audio mixer: Peavey/Yamaha/Equivalent</li> <li>d) Crossover: Peavey/Equivalent Handheld Mikes - Shure/Sennheiser</li> <li>a) DAC – Denon / Yamaha / Pioneer</li> </ul>
14	Laser System	<ul style="list-style-type: none"> <li>a) Two sets of 5 watt laser (RGB ) white light beam projector with Pangolin software with 60Kpps scanner and 60 degree angle, In compact case with forced air cooling</li> </ul>	<ul style="list-style-type: none"> <li>a) Laser Animation/Kvant / Laser World/ Reputed</li> <li>b) Show Control System – DSP Laser Animation Show Control or Pangolin</li> </ul>
15	Video Projection System	<ul style="list-style-type: none"> <li>e) 1 Nos. Video Projector with brightness 20.000 ANSI Lumen (20.000 center Lumen)</li> <li>f) 2 Nos. Original Lenses</li> <li>g) Flying frame for stacking</li> <li>h) 1 No. Media server with HD for various high resolution media contents with network ability</li> </ul>	<ul style="list-style-type: none"> <li>a) Projector – Panasonic/Christie/Barco</li> <li>b) Original Lens - Christie/Barco</li> </ul>
16	Show control system	<ul style="list-style-type: none"> <li>a) Programmed control with software.</li> <li>b) Seamlessly integration of the white beam projection, water screen, video projector, Aqua based pyrotechnics special effects and dancing water effects to produce a continuous show/spectacle by using a show controller.</li> <li>c) The Control System should be an easy to use, versatile programme running on a dedicated computer which will enable complex multimedia shows to be organized and run automatically.</li> </ul>	Jackson / Cummins / Kirloskar / Caterpillar / Sterling Wilson rogrammed control with Sunlite 2 software. Seamlessly integration of the white beam projection, water screen, video projector, Aqua based pyrotechnics special effects and dancing water effects to produce a continuous show/spectacle by using a show controller. The Control System should be an easy to use, versatile programme running on a dedicated computer which will enable complex multimedia shows to be organized and run automatically. The system will control aqua screens, water effects, white

		<p>d) The system will control aqua screens, water effects, white beam projectors, video projectors and stream video projection, and other lighting, along with music and voiceover.</p> <p>e) Complex and spectacular will be easy to assemble &amp; run with exceptional ease of use.</p>	<p>beam projectors, video projectors and stream video projection, and other lighting, along with music and voiceover. Complex and spectacular will be easy to assemble &amp; run with exceptional ease of use.</p>
17	<b>Creative designing &amp; show Content development</b>	<p>a) Development and designing of one number of Show for 15-20 min including dancing water features, RGB projectors, video and pyrotechnic contents.</p> <p>b) Development of Content for all effects including script and other requirement.</p>	<p>Programmed control with Sunlite 2 software. Seamlessly integration of the white beam projection, water screen, video projector, Aqua based pyrotechnics special effects and dancing water effects to produce a continuous show/spectacle by using a show controller. The Control System should be an easy to use, versatile programme running on a dedicated computer which will enable complex multimedia shows to be organized and run automatically. The system will control aqua screens, water effects, white beam projectors, video projectors and stream video projection, and other lighting, along with music and voiceover. Complex and spectacular will be easy to assemble &amp; run with exceptional ease of use.</p>
<p><b>Note:</b></p> <ol style="list-style-type: none"> <li>1. Electrical Network System shall be approved from NRDA before procurement and installation.</li> <li>2. Light bodies should be IP68 certified by Govt. of India test laboratory. Cables to be used under water shall be submersible type.</li> <li>3. Civil works for view gallery and any other equipment machinery shall be in scope of NRDA.</li> <li>4. Civil works, furniture, Air Condition, or any other equipment / machinery shall be in scope of the contractor.</li> </ol>			
[9]	<p><b>Other Requirements: (Changes in v &amp; vi)</b></p> <p>vii. Overall <b>span of the water</b> features i.e. The width across the water effects in front of the audience, measured from outer edges of water effects shall be minimum 62meter.</p> <p>viii. The <b>water patterns</b> should be synchronized in such a manner that it should blend the events and indeed, amplify it. The patterns should be a harmony of music, water and lights.</p> <p>ix. The show should comprise of water effects which are switched on and off in a split second. The water effects appear to travel all over – all lit in a multiplicity of beautiful colors. The features should comprise of a computerized control system – software specifically written for controlling and synchronizing the water features.</p> <p>x. The floating synchronized dancing water features should comprise of fast high speed acting jets which can form a high definition screen.</p> <p>xi. Water effects: Minimum of 25 unique patterns and minimum of 200 effects. Selected bidder would have the flexibility to chose any effect of his choice provided that it is approved by NRDA. The proposed effects shall be made part of the presentation to be submitted and presented to NRDA as part of RFP evaluation.</p> <p>xii. Content Production: <b>(Deletion of e,f,h and ix)</b> Contents shall be as per the concept with consultation of NRDA.</p> <p>a. Production of one number customized show light, pyrotechnic sound &amp; laser of duration of minimum 15-20 minutes each using the laser beam animation, fountain formations and video projectionsystem and approved script by NRDA</p> <p>b. All scripts and shows must get approval from NRDA and any modifications/ alterations suggested by NRDA should be suitably modified and altered to the satisfaction of NRDA</p> <p>c. New mixed media content needs to be developed and played every three months during the operation period</p> <p>d. The content must be innovative and world-class</p> <p>e. NRDA may provide the contractor with their own contents in any playable format. In such case, it shall be the responsibility of the contractor to render the content in a format required for the project.The contractor shall bear any costs associated with such rendering.</p> <p>f. Royalties and rights of contents will remain with NRDA. The selected bidder shall have no claims,whatsoever, on the content.</p> <p>xiii. Viewers Gallery, Control Room</p> <p>a. Layout and plans of viewer's gallery and control room should be submitted by bidder along with the tender</p> <p>b. The cost of all the civil works for viewer's gallery will be in scope of NRDA.</p> <p>c. The selected bidder / contractor shall bear the cost of civil works, furniture, Air Condition or any other equipment or machinery that shall be used in the control room.</p>		<p><b>Amended. Please See amendment as Annex-2.</b></p>



**REPLY TO PRE-BID QUERIES IN RFP**

**Subject:** SELECTION OF DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF MULTIMEDIA LASER AND VIDEO SHOW ON WATER SCREEN WITH MUSICAL DANCING FOUNTAIN WITH LIGHT & SOUND AND ITS OPERATION & MAINTENANCE FOR 3 YEARS, AT RAJDHANI SAROVAR, SECTOR 19, NAYA RAIPUR, CHHATTISGARH, INDIA

<b>S. no.</b>	<b>As per RFP</b>	<b>Queries</b>	<b>Reply/Amendment</b>	<b>Reasons</b>
	<b>3. Other Requirements</b>			
1	<b>v. Water effects:</b> Minimum of 25 unique patterns and minimum of 200 effects.	<b>There is an error in this - Third column in 2.8 ( Page 21 ) mentions,120 nos water effects. This may be corrected.</b>	Water effects: Bidder has to develop minimum of <b>35 unique patterns</b> and minimum of 200 effects excluding the pyro-technique effects. Selected bidder would have the flexibility to choose any effect of his choice provided that it is approved by NRDA. The proposed effects shall be made part of the presentation to be submitted and presented to NRDA as part of RFP evaluation.	Number of Water -patters of musical fountain has been increased and clarity has been provided.
	<b>vii. Content Production</b>			
2	a. Production of different subject based mixed media content with light, pyrotechnic sound & laser of duration of minimum 30 minutes each...	What is the bifurcation of 30 min of content can we split accordingly or there is any particular duration for the Dancing Fountain, Multimedia laser, Video program.	a) Production of different subject based Mixed-Media Content of 2 nos. with Musical-Dancing Fountain, Light, Pyrotechnic, Sound, Laser & Video-show (having minimum 10 min.) of duration of minimum 30 minutes each using the Laser-beam Animation, Musical-Dancing Fountain formations and video projection system with available library production and approved script by NRDA.	<b>Amended. Please See amendment as Annex-2.</b>
3	f. 20 contents required	Kindly correct the same to 12 contents, 3 for every quarter for 3 years.	b) In total, maximum 02 contents shall be developed & delivered at the time of commissioning. It is required to change the Songs unlimited times for avoiding monotony, suits to existing contents.	
4		Which song should be used for musical dance fountain and Video.	c) New mixed media content needs to be developed and played as per the requirement of NRDA with additional cost during the 3years operation & maintenance period.	
5		As it mentioned in the tender that O&M period is 3 years hence content should be 12 nos only but it has also mentioned 20 nos and 5 years. Please amend the same.		
[10]	4.Operation and Maintenance	<b>Point (r)</b> requested to be deleted	<b>No Change.</b>	
[11]	<b>9. Facilities to be provided by NRDA</b>	<b>Premier world Technology Ltd, Kolkata.requested for editing as hereunder)</b> a. Electricity connection and supply shall be provided by NRDA till the control room. Contractor shall specify its electricity requirement to NRDA. All internal connections shall be installed by the contractor. b. Water supply shall be provided inside the lake by NRDA and will be ensured to maintain a constant level of 4m.	1. <i>Electrical Network System shall be approved from NRDA before procurement and installation.</i> 2. <i>During Installation &amp; commissioning stage necessary Electricity/DG set is arranged by the contractor with his own cost. If NRDA is providing electricity then its charges will be paid by the contractor. After commissioning the project, necessary electricity charges will be reimbursed by the NRDA to the contractor, but necessary power back-up by other sources like DG set is under scope of the contractor with his own cost.</i>	
[12]	<b>11. Approvals</b>	Request for <b>deletion</b> from scope of bidder	No Change.	

**REPLY TO PRE-BID QUERIES IN RFP**

**Subject:** SELECTION OF DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF MULTIMEDIA LASER AND VIDEO SHOW ON WATER SCREEN WITH MUSICAL DANCING FOUNTAIN WITH LIGHT & SOUND AND ITS OPERATION & MAINTENANCE FOR 3 YEARS, AT RAJDHANI SAROVAR, SECTOR 19, NAYA RAIPUR, CHHATTISGARH, INDIA

S. no.	Queries in RFP				Reply/ Amendment																			
[13]	<b>SECTION-III; STAGES OF PAYMENT</b>																							
1	Following payment terms suggested as Edited below, Also Point No 7 & 10 in "NOTE" to be Deleted Payment schedule during constructions, installation, completion and operation & maintenance of the project shall be as under:				<b>Amended. Please See amendment as Annex-3.</b>																			
2	Payment schedule during constructions, installation, completion and operation & maintenance of the project shall be as under:																							
	<b>Stage</b>	<b>Particulars</b>	<b>% of Contract Price (Including O&amp;M)</b>	<b>Cumulative Payment</b>		<b>Conditions to be fulfilled</b>																		
	1.	Mobilization Advance.	25%			Bank Guarantee from a schedule Bank to the extent of mobilization Advance to be paid.																		
	2.	On Design, Supply, Installation, testing & commissioning of the Computerized programmed musical dancing fountain GRID consisting of pressure manifold, fountain frame grid, connecting feeder pipes, pumps for the required fountain and water screen, dynamic and static fountain nozzles spanning 80 meter, solenoid valve all complete as per required specifications and make such that the overall span of the water features i.e the width across the water effects in front of the audience, measured from outer edges of water effects shall be between 80 meter. Supply, installation and commissioning of centre fed water screen using high pressure nozzle and suitable high capacity pump to provide a screen of size of miimum 11m (H) x 33 m (W) to enable projections of laser images, video movies, video stills and special effects, complete with all accessories, submersible pumps, plumbing lines, electrical accessories all complete as per requirement.	50 %	50%																				
	3	On Supply, installation and commissioning of Laser system of required specifications and make, Video Projector system with not less than 30000 lumens, total light output of specified make, all complete as per requirement.	10%	60%																				
	4	On completion of all balance work and successful commissioning of the project in totality, complete as per required specifications and make. Balance of shall mean all balance work required for successful commissioning of project and such balance of work shall include but not limited to LED fountain lighting, Sound system, electrical Panel, laser, pyrotechnic show controller system including software, all cabling, wiring all complete as per the required specifications and make.	10%	70%																				
	5	Mixed Media Content Development (Time coded light, sound and video scaping synchronized with the fountain system): Maximum 20 (1 every quarter during 5 years O&M period; 3 to be delivered at the time of commissioning)	15%	85%																				
		<table border="1"> <thead> <tr> <th>S. n.</th> <th>Milestone</th> <th>% of Milestone Fee</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1<sup>st</sup> Draft of content script and approval by NRDA</td> <td align="center">5%</td> </tr> <tr> <td>2</td> <td>Final submission of content script</td> <td align="center">10%</td> </tr> <tr> <td>3</td> <td>Submission and approval of raw footage of the content</td> <td align="center">20%</td> </tr> <tr> <td>4</td> <td>Submission and approval on final content</td> <td align="center">25%</td> </tr> <tr> <td>5</td> <td>Commissioning</td> <td align="center">40%</td> </tr> </tbody> </table>	S. n.	Milestone		% of Milestone Fee	1	1 <sup>st</sup> Draft of content script and approval by NRDA	5%	2	Final submission of content script	10%	3	Submission and approval of raw footage of the content	20%	4	Submission and approval on final content	25%	5	Commissioning	40%			
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4	Submission and approval on final content	25%																						
5	Commissioning	40%																						
	6.	During first year of Operation and Maintenance	5%	90%	Shall be paid in First year of O & M in equal Quarterly installment after the date of successful commissioning																			
	7.	During Second year of Operation and Maintenance	5%	95%	Shall be paid in Second year of O & M in equal Quarterly installment.																			
	8.	During Third year of Operation and Maintenance	5%	100%	Shall be paid in Third year of O & M in equal Quarterly installment.																			

<b>REPLY TO PRE-BID QUERIES IN RFP</b>		
<b>Subject:</b> SELECTION OF DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF MULTIMEDIA LASER AND VIDEO SHOW ON WATER SCREEN WITH MUSICAL DANCING FOUNTAIN WITH LIGHT & SOUND AND ITS OPERATION & MAINTENANCE FOR 3 YEARS, AT RAJDHANI SAROVAR, SECTOR 19, NAYA RAIPUR, CHHATTISGARH, INDIA		
S. no.	Queries in RFP	Reply/ Amendment
3	<p><b>NOTE:</b> 1. Mobilization advance shall be adjusted proportionately from the payments made under stage 2, 3 &amp; 4.</p> <p>2. The break-up of the payment under stage 2, 3 &amp; 4 shall be as follows: -</p> <p>A. On supply of material – 60% of the amount payable under each stage or 90% of the invoice value of the material received, whichever is less, as interim payment.</p> <p>B. 40% of the amount shall be paid under each stage on installation and testing of the work specified in the respective stage.</p> <p>3. Any further break up of payments, if required, shall be decided by CEO, NRDA.</p> <p>4. Commissioning of the project means commissioning of all the systems together such that project is operational in all respects.</p> <p>5. All payment shall be made in Indian Rupees (INR). In case of a JV, all payments shall be made to Lead Partner.</p> <p>6. All the statutory deductions and deductions as per the contract condition shall be made from each running bill.</p> <p>8. No other payment shall be made on account of O &amp; M.</p> <p>8. On award of project, the bidder shall provide the proof of procurement of material from the OEM of the make specified in this Tender Document.</p> <p>9. Payment under stage 5 shall be made in instalments as and when contents get developed and approved by the authority.</p>	<p><b>Amended. Please See amendment as Annex-3.</b></p>
4	Point No 2,3,4 where in 35% 45% and 75% is mentioned. As the project is to be completed within 180 days, we request to kindly consider the amount as 50%, 20% & 15% as the cost of equipments and nozzles are higher than the maintenance cost.	
5	In the tender Section III under Note clause No. 6, you have specified about statutory deductions. Please clarify the Tax heading and Percentage of deductions levied from the running bill.	IT, CT/GST & Local Cess.
6	Pg 48 Format XIII, Format for Financial RFP. Request to segregate the cost of Musical Fountain and cost of O & M separately so as to have justified cost of the project. And easy of evaluation and comparison.	<p><b>Amended. Please See amendment as Annex-3.</b></p>

**Annex-1: Modified Evaluation Criteria:**

The Criteria for evaluating the Technical Bids would be as follows-

S. No.	Description	Maximum Marks	Marking Criteria
1	Minimum Average Annual Turnover of INR 8,00,00,000 (Rupees Eight Crore only) in the last three financial years.	15	<ul style="list-style-type: none"> <li>• INR 8.0 to 10.0 Cr = 5 marks</li> <li>• INR 10.0 to 15.0 Cr = 8 marks</li> <li>• INR 15.0 to INR 20.0 Cr = 12 marks</li> <li>• More than INR 20.0 Cr = 15 marks</li> </ul>
2	Minimum Net worth of minimum INR 2,50,00,000 (Rupees Two crore fifty lakh only) at the close of the preceding financial year (FY 2015-16 or 2016-17).	10	<ul style="list-style-type: none"> <li>• INR 2.5 to INR 5 Crore = 3 mark</li> <li>• INR 5.0 to INR 7.5 Crore = 5 mark</li> <li>• INR 7.5 to INR 10.0 Crore = 8 marks</li> <li>• More than INR 10.0 Cr = 10 mark</li> </ul>
3	The Bidder should have successfully completed one eligible projects of 8.0 Cr in last 7 years from Bid Due date.	20	<ul style="list-style-type: none"> <li>• 1 projects = 8 marks</li> <li>• 2 projects = 12 marks</li> <li>• 3 projects = 15 marks</li> <li>• 4 or more projects = 20 marks</li> </ul>
4	The Bidder should have successfully completed two numbers of eligible projects of 4.0 Cr. each in last 7 years from Bid Due date.	15	<ul style="list-style-type: none"> <li>• 2 projects = 5 marks</li> <li>• 3 Projects = 8 marks</li> <li>• 4 Projects = 12 marks</li> <li>• More than 4 projects = 15</li> </ul>
5	Operation and Maintenance experience for minimum 1 (one) year of permanent attraction with musical fountain and multimedia laser show on water screen with a show time of at least 10 minutes every day in India or abroad.	20	<ul style="list-style-type: none"> <li>• 1 project for 1 yr. = 5 marks</li> <li>• 1 project for 2 yrs. = 8 marks</li> <li>• 2 to 3 projects for 1 yr. = 10 marks</li> <li>• 2 to 3 projects for 2 yrs. = 12 marks</li> <li>• &gt; 3 projects for 2 yrs. = 15 marks</li> <li>• &gt; 3 projects for &gt; 2 yrs. = 20 marks</li> </ul>
6	Presentation to NRDA on approach & methodology, proposed design and showcasing past experience on similar project.	20	<p>Scores will be given by Technical-Evaluation Committee of NRDA on following parameters-</p> <ul style="list-style-type: none"> <li>• Past Experience &amp; Understanding of the project requirements- 5 marks</li> <li>• Proposed Design (including all technical aspects &amp; it's suitability to the site and project requirements)- 10 marks</li> <li>• Videos or Images showcasing past similar experiences &amp; Proposed for this project (PPT)- 5 marks</li> </ul>
	<b>Total</b>	<b>100</b>	

**Annex-2: Component wise requirements, Specifications, Makes and/or Brands:**

S. No.	Component Name	Required Specification	Make / Brand
1	Digital Swing jets 360 Degree	g) Three direction digital swing jets nozzles made of stainless steel ( Minimum 8 Nos) h) Maintenance free system without belts and automatic positioning for vertical position i) Fast and wide range to offer a wide range of effects j) Set up within the show line instead of static fountain k) Minimum height of water - 20m l) Pumps of required type and capacity to achieve desired effect	h) Pipes – Stainless-Steel / GI of Jindal/TATA/SAIL make. i) Pumps- Grunfos / KSB / Kirloskar make [all technology sealed Pumps / in an oil bath / submersible pumps]. j) Nozzle - Stainless steel /Brass/Bronze
2	Ultra-Fast Action Jets on a designed pipe work	g) Minimum height of water- 20m; Minimum 65 nos. h) Nozzles made up of brass chrome plated and each provided with fast acting gun metal solenoid valve mounted on a galvanised steel manifold.	a) Pipes – Stainless-Steel / GI of Jindal/TATA/SAIL make. b) Pumps- Grunfos / KSB / Kirloskar make [all technology sealed Pumps / in an oil bath / submersible pumps].
3	Ultra Fast Action Jets a ring with minimum 9.5 m Pitch circle diameter PCD	b) Ultrafast-action jets with nozzles made up of brass chrome plated and each provided with fast acting gun metal solenoid valve and mounted on a galvanised steel manifold , with VFD pumps. (Minimum 24 numbers) c) Max height of water effect: 20 m	c) Nozzle- Stainless steel /Brass/ Bronze Metals for the water fountain. <b>Make: Waterworks / Wet Design / Premierworld.</b>
4	<b>Arch Jets</b>	e) Water effects forming Arches (minimum <b>6 numbers</b> ) f) Minimum height of water effect : 12 meters	
5	Water Screen Minimum. 11m high 33 m wide	g) Centre Fed Water Screen size- <b>11 m x 33 m.</b> h) Galvanised steel pipes & fittings i) Min. water transport volume for water screen – 490 m <sup>3</sup> /h j) Total capacity of pumps - 90 kW; Bidders may choose any combination of pumps to achieve the desired effect	a) Pumps- Grunfos / KSB / Kirloskar make [all technology sealed Pumps / in an oil bath / submersible pumps]. b) Nozzle - Stainless steel /Brass/Bronze Metals for the water fountain. <b>Make: Waterworks / Wet Design / Premierworld.</b>
6	<b>Centre Jet</b>	e) Straight jet, delivering a water effect operated through VFD Pumps, Can also be operated during day time as an attraction. f) Minimum height of water effect : 35 meters	
7	Sunburst effects	e) Water effect like sun (Minimum 2 Nos) f) Minimum jet height 6 m height	
8	<b>Aqua Pyrotechnic Flame Canon</b>	g) Aqua Pyrotechnic Flame Canon, (Minimum 4 numbers ) h) Minimum 6 m high	a) Minimum 120 types of water effects b) End to end linier Span of water effects 75 m c) Nozzle-Stainless steel /Brass/Bronze/Aluminium alloy, d) Grid pipes - Non Corrosive Extruded Aluminium alloy e) Strainer- Stainless steel mesh filter, f) Connecting Pressure Manifold.-Galvanised Steel , g) Feeder Pipes - Galvanised steel h) Pumps- Grunfos / KSB / Kirloskar make [all technology sealed Pumps / in an oil bath / submersible pumps].
9	<b>Aqua Pyrotechnic Mortar,</b>	i) Aqua Pyrotechnic Mortar (6 numbers) , j) Minimum 6 m high	<b>Make: Waterworks / Wet Design / Premierworld.</b>

S. No.	Component Name	Required Specification	Make / Brand		
10	LED lights	<ul style="list-style-type: none"> <li>k) LED lights fixture comprising a minimum of 250 nos. of 54 Watt RGB-LED lighting fixtures.</li> <li>l) LED Waterproof luminaries with array of high output of LEDs housed in compact enclosure of stainless steel body.</li> <li>m) Toughened glass with elastomer seal.</li> <li>n) Special plastic cable gland compact socket head fasteners and mounting bracket are all of stainless steel.</li> <li>o) Light bodies should be IP68 certified by NABL accredit Test Laboratory.</li> </ul>	Make: Philips-Martin/WIPRO		
11	Floating Structure	<ul style="list-style-type: none"> <li>e) HDPE (Blue/Grey/Black color) / M.S., Galvanized Pipes /Stainless Steel as Floation / Fixed with water depth flexibility device for Fountains and Water-screen.</li> <li>f) Floats made of HDPE (High Density Polyethylene) / M.S., Galvanized Pipes /Stainless Steel interlocking cubes, should be modular in construction and can be interlocked to form a Floating /fixed with water depth flexibility structure of any shape.</li> <li>g) Floats /water depth flexibility are maintenance free, durable, and convenient and environment friendly.</li> <li>h) Anchoring system by steel wire ropes with proper anchoring system.</li> <li>i) A Projection room (Floating or fixed on bank of the Lake as approved by NRDA) of approximate size of 2.5 m x 2 m x 1.8 m height with AC Control Room of minimum size 10mx3mx3m ht.</li> </ul>	<p><b>Make: Waterworks / Wet Design / Premierworld.</b></p> <p>All civil work for Floating /fixed Structure &amp; Projection Room, control room, etc.</p> <p>HDPE floats (blue color) as floatation device for fountain and water screen. Floats made of HDPE (high density polyethylene) interlocking cubes. They are modular in construction and can be interlocked to form a floating structure of any shape. These floats are maintenance free, durable, and convenient and environment friendly. Anchoring system by steel wire ropes with proper anchoring system. A Projection room (Floating or fixed on bank of the Lake as approved by NRDA) of approximate size of 2.5 m x 2 m x 1.8 m height with AC Control Room of minimum size 10mx3mx3m ht.</p>		
12	Show-control system	<ul style="list-style-type: none"> <li>e) 1 no. Auto-run ability show-control system.</li> <li>f) Fiberglass connection between controls and systems with back up connection.</li> <li>g) High Performance Gigabit/Fiber Optic Ethernet Switch (managed), 8-port Gigabit Network/ 2-port along with compatible fiber and cable drum.</li> <li>h) Audio Source min quality 44.1kHz stereo WAF format; digital audio player with SMPTE 25f/s TC interface.</li> </ul>	<ul style="list-style-type: none"> <li>c) Show Control System: High End Systems, Hedge Hog 4X, 8 Universes (2x DMX/ 6x ArtNet sACN E1.3.1), 12,1" Full-Color Touchscreen, 10 Playback Faders, Internal Solid State or Grand MA product with similar or better specification than High End Systems, Hedge Hog 4X or Avolite/ Watchout / Coolux / ShowCAD Artist/Sunlite suite-2.</li> <li>d) Fiber System: Rock Solid Technologies, RockLink, Fiberfox® EBC 1502 or better brand product with equivalent specifications.</li> </ul>		
13	Sound System	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <li>a) Amplifiers: 6 numbers amplifier (500 W + 500 W)</li> <li>b) Speakers: 300 watt speakers x 8 numbers and 650 watt subwoofer x 4 Numbers</li> <li>c) 1 no. 32 channel mixer</li> <li>d) Racks and Stands</li> <li>e) 2 nos. Cordless Mikes</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <li>f) 2 nos. Handheld Mikes</li> <li>g) 2 nos. CD Player</li> <li>h) 1 no. DAC</li> <li>i) 1 no. Media Player</li> <li>j) 1 no. Snake</li> <li>k) 1 no. Delay</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>a) Amplifiers: 6 numbers amplifier (500 W + 500 W)</li> <li>b) Speakers: 300 watt speakers x 8 numbers and 650 watt subwoofer x 4 Numbers</li> <li>c) 1 no. 32 channel mixer</li> <li>d) Racks and Stands</li> <li>e) 2 nos. Cordless Mikes</li> </ul>	<ul style="list-style-type: none"> <li>f) 2 nos. Handheld Mikes</li> <li>g) 2 nos. CD Player</li> <li>h) 1 no. DAC</li> <li>i) 1 no. Media Player</li> <li>j) 1 no. Snake</li> <li>k) 1 no. Delay</li> </ul>	<ul style="list-style-type: none"> <li>b) Speakers - JBL/ Bosch (EV) / Tannoy / EAW / Martin</li> <li>c) Amplifiers - Crown / Powersoft / JBL / Lab Gruppen / MC2</li> <li>d) Channel Mixer- <ul style="list-style-type: none"> <li>i. Manual - Allen &amp; Heath / Mackie / Soundcraft / Yamaha</li> <li>ii. Automatic – BIAMP / ClearOne / Polycom</li> </ul> </li> <li>e) Cordless Mikes - UHF- Shure/ Sennheiser / BayerDynamic</li> <li>f) Handheld Mikes – Shure / Sennheiser.</li> <li>g) DAC– Denon / Yamaha / Pioneer.</li> </ul>
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S. No.	Component Name	Required Specification	Make / Brand
14	Laser System	b) Two sets of 5 watt RGB Laser-beam projector with Pangolin software with 60 kbps scanner and 60 degree angle, in compact case with forced air cooling.	a) Two sets of 5 watt RGB Laser-beam projector. Make: Laser Animation/Kvant / Laser World/ Tarm/ HB Laser b) Show Control System – DSP Laser Animation Show Control or Pangolin
15	Video Projection System	1 Nos. Video Projector with brightness of minimum 20000 ANSI Lumen or more (20000 Center Lumen or more). 2 Nos. Original Lenses. Flying frame for stacking. 1 No. Media Server with HD for various high resolution media contents with network ability.	Approved Make for Projector & Lens: Christie / Barco / Panasonic.
16	Show-control software & integration	a) Programmed control with software. b) Seamlessly integration of the white beam projection, water screen, video projector, Aqua based pyrotechnics special effects and dancing water effects to produce a continuous show/spectacle by using a show controller. c) The Control System should be an easy to use, versatile programme running on a dedicated computer which will enable complex multimedia shows to be organized and run automatically. d) The system will control aqua screens, water effects, white beam projectors, video projectors and stream video projection, and other lighting, along with music and voiceover. e) Complex and spectacular will be easy to assemble & run with exceptional ease of use.	Programme control with Sunlite 2 software. Seamlessly integration of the white beam projection, water screen, video projector, Aqua based pyrotechnics special effects and dancing water effects to produce a continuous show/spectacle by using a show controller. The Control System should be an easy to use, versatile programme running on a dedicated computer which will enable complex multimedia shows to be organized and run automatically. The system will control aqua screens, water effects, white beam projectors, video projectors and stream video projection, and other lighting, along with music and voiceover. Complex and spectacular will be easy to assemble & run with exceptional ease of use.
17	<b>Creative designing &amp; show Content development</b>	a) Development and designing of 2(two) numbers of Shows for 30 min including musical fountain, lazer, video-show (having minimum10 min) and pyrotechnic contents. b) Development of Content for all effects including script and other requirement. c) The programmer will be stationed at project-location to day-by-day changes in the audio effects (like songs) and patterns.	

**Note:**

1. *Electrical Network System shall be approved from NRDA before procurement and installation.*
2. *During Installation & commissioning stage necessary Electricity/DG set is arranged by the contractor with his own cost. If NRDA is providing electricity then its charges will be paid by the contractor. After commissioning the project, necessary electricity charges will be reimbursed by the NRDA to the contractor, but necessary power back-up by other sources like DG set is under scope of the contractor with his own cost.*
3. *Electrical fixtures that would be subjected regularly to water: IP68 and others electrical fixtures: IP65; Cables to be used under water shall be submersible type.*
4. *Bidder shall provide OEM authorization in the form of comfort letter from OEM for providing its spares and services to the successful bidder.*
5. *Necessary Civil works, Air-Conditioner, Silent-Diesel Generator Set or any other equipment / machinery shall be in scope of the contractor.*

## 1. Other Requirements:

- i. **Overall span** of the water features i.e. The width across the water effects in front of the audience, measured from outer edges of water effects shall be minimum 75 meter
- ii. The **water patterns** should be synchronized in such a manner that it should blend the events and indeed, amplify it. The patterns should be a harmony of music, water and lights.
- iii. The show should comprise of water effects which are switched on and off in a split second. The water effects appear to travel all over – all lit in a multiplicity of beautiful colors. The features should comprise of a computerized control system – software specifically written for controlling and synchronizing the water features.
- iv. The floating synchronized dancing water features should comprise of fast high speed acting jets which can form a high definition screen.
- v. **Water effects:** Bidder has to develop **minimum of 35 unique patterns** and **minimum of 200 effects excluding the pyro-technique effects**. Selected bidder would have the flexibility to choose any effect of his choice provided that it is approved by NRDA. The proposed effects shall be made part of the presentation to be submitted and presented to NRDA as part of RFP evaluation.
- vi. **Show-control system:** Bidders are not just to deliver an engineering project but to have a demonstrated ability to integrate engineering with a creative and artistic process to produce a complete show/spectacle. The Show Control System should be an easy to use, versatile programme running on a dedicated computer which enables complex multimedia shows to be organized and run automatically. The system should control water effects, projectors, and stream music and voice over. Complex and spectacular shows should be easy to assemble, edit and run with exceptional ease of use. The system shall have the following unique features such that:
  - Programming of the water features can be done at site by Bidder/Contractor's personnel.
  - Fine tuning can be done at site and to meet specific requirements.
  - Programming can be done online – implementing a command on screen will bring up the effect on the fountain.
  - Programming is faster and more accurate.
- vii. **Content Production:** Contents shall be as per the concept with consultation of NRDA.
  - a. Production of different subject based **Mixed-Media Content** of 2 nos. with Musical-Dancing Fountain, Light, Pyrotechnic, Sound, Laser & Video-show (having minimum 10 min.) of duration of minimum 30 minutes each using the Laser-beam Animation, Musical-Dancing Fountain formations and video projection system with available library production and approved script by NRDA.
  - b. All scripts and shows must get approval from NRDA and any modifications/ alterations suggested by NRDA should be suitably modified and altered to the satisfaction of NRDA.
  - c. New mixed media content needs to be developed and played as per the requirement of NRDA with additional cost during the 3years operation & maintenance period.
  - d. The content must be innovative and world-class.
  - e. The contractor shall be ready with and get at least 2 different contents approved before commissioning of the project.
  - f. In total, **maximum 02 contents** shall be developed & delivered at the time of commissioning. ***It is required to change the Songs unlimited times for avoiding monotony, suits to existing contents.***
  - g. NRDA may provide the Contractor with their own contents for publicity in any playable format. In such case, it shall be the responsibility of the Contractor to render the content in a format required for the project. The contractor shall bear any costs associated with such rendering.
  - h. After the show is soft commissioned, the same will be reviewed by NRDA. Suggestion in the concept/integration, voice, etc. received from NRDA same need to be incorporated before the show is finally commissioned.
  - i. Royalties and rights of contents will remain with NRDA. The selected bidder shall have no claims, whatsoever, on the content.
- viii. **Viewers Gallery, Control Room**
  - a. Layout and plans of viewer's gallery and control room should be submitted by bidder along with the RFP.
  - b. The cost of all the civil works for viewer's gallery will be in scope of NRDA.
  - c. The selected bidder / contractor shall bear the cost of civil works, furniture, Air-Conditioner, DG set or any other equipment or machinery that shall be used in the Control-room.
- ix. **Water and filtration**

The Bidder/ Contractor shall use the water from the lake of the proposed project. The Bidder/Contractor shall make necessary arrangement for filtration such that the debris should not accumulate in the system affecting the head pressure, flow characteristics and in turn affecting the fountain effects.



**Annex-3: STAGES OF PAYMENT**

Payment schedule during constructions, installation, completion and operation & maintenance of the project shall be as under:

Stage	Particulars	% of Contract Price (Including O&M)	Cumulative Payment	Conditions to be fulfilled
1.	Mobilization Advance.	10%		Bank Guarantee from a schedule Bank to the extent of mobilization Advance to be paid.
2.	On Design, Supply, Installation, testing & commissioning of the Computerized programmed musical dancing fountain GRID consisting of pressure manifold, fountain frame grid, connecting feeder pipes, pumps for the required fountain and water screen, dynamic and static fountain nozzles spanning 80 meter, solenoid valve all complete as per required specifications and make such that the overall span of the water features i.e the width across the water effects in front of the audience, measured from outer edges of water effects shall be between 75 meter. Supply, installation and commissioning of centrefed water screen using high pressure nozzle and suitable high capacity pump to provide a screen of size of minimum 11m (H) x 33 m (W) to enable projections of laser images, video movies, video stills and special effects, complete with all accessories, submersible pumps, plumbing lines, electrical accessories all complete as per requirement.	40 %	40%	Necessary IT+GST+SD will be deducted.
3	On Supply, installation and commissioning of Laser system of required specifications and make, Video Projector system with 20000 lumens (or more), total light output of specified make, all complete as per requirement.	20%	60%	Necessary IT+GST+SD will be deducted.
4	On completion of all balance work and successful commissioning of the project in totality, complete as per required specifications and make. Balance of shall mean all balance work required for successful commissioning of project and such balance of work shall include but not limited to LED fountain lighting, Sound system, electrical Panel, laser, pyrotechnic show controller system including software, all cabling, wiring all complete as per the required specifications and make.	15%	75%	Necessary IT+GST+SD will be deducted.

Stage	Particulars	% of Contract Price (Including O&M)	Cumulative Payment	Conditions to be fulfilled		
5	2 nos. Mixed Media Content Development & delivered at the time of commissioning (Time coded light, sound and video-scaping synchronized with the fountain system)-		10%	85%	Necessary IT+GST+SD will be deducted.	
	<b>S. No.</b>	<b>Milestone</b>				<b>% of Milestone Fee</b>
	1	1 <sup>st</sup> Draft of content script and approval by NRDA				5%
	2	Final submission of content script				10%
	3	Submission and approval of raw-footage of the content				20%
	4	Submission and approval of Final content				25%
5	Commissioning	40%				
6.	During first year of Operation and Maintenance. [Necessary IT+GST+SD will be deducted].	4%	90%	Shall be paid in First year of O & M in equal Quarterly installment after the date of successful commissioning.		
7.	During Second year of Operation and Maintenance. [Necessary IT+GST+SD will be deducted].	5%	95%	Shall be paid in Second year of O & M in equal Quarterly installment.		
8.	During Third year of Operation and Maintenance [Necessary IT+GST+SD will be deducted].	6%	100%	Shall be paid in Third year of O & M in equal Quarterly installment.		

- NOTE:**
- Mobilization advance shall be adjusted proportionately from the payments made under stage 2, 3 & 4.
  - The break-up of the payment under stage 2, 3 & 4 shall be as follows: -
    - On supply of material – 60% of the amount payable under each stage or 90% of the invoice value of the material received, whichever is less, as interim payment.
    - 40% of the amount shall be paid under each stage on installation and testing of the work specified in the respective stage.
  - Any further break up of payments, if required, shall be decided by CEO, NRDA.
  - Commissioning of the project means commissioning of all the systems together such that project is operational in all respects.
  - All payment shall be made in Indian Rupees (INR). In case of a JV, all payments shall be made to Lead Partner.
  - All the statutory deductions and deductions as per the contract condition shall be made from each running bill.
  - The expenditure made by the contractor on diesel for DG set shall be reimbursed by NRDA, during O & M period. In addition, NRDA shall reimburse the electricity bill paid by the Contractor for smooth running of the project at the end of each quarter. NRDA may conduct energy audit of the project. In case the audit reports find any discrepancy, the same shall be adjusted in NRDA payments to the Contractor.
  - No other payment shall be made on account of O & M.
  - On award of project, the bidder shall provide the proof of procurement of material from the OEM of the make specified in this RFP Document.
  - Payment under stage 5 shall be made in installments as and when contents get developed and approved by the authority.
  - There shall be 2nos. Mixed Media Content to be delivered at the time of commissioning. **In case the Authority demands for more number of content, the Contractor shall provide the content on additional fee as mutually agreed between them.**

**A. PERFORMANCE GUARANTEE & SECURITY DEPOSIT**

- At the time of signing of contract agreement the contractor has to deposit 5% (Five Percent) of the RFP amount as performance guarantee in the form of Account Payee Demand Draft/ Bank Guarantee from a Nationalized bank or Scheduled Commercial Bank in the prescribe format. The Bank Guarantee shall remain valid throughout the contract period. **The Performance Guarantee will be released after successful performance of the contractual obligation (i.e. after the completion of O&M period).**
- The Security deposit of 5% (Five Percent) of the gross value of work done at each stage shall be deducted from the payments made to the contractor (EMD shall be adjusted towards the security deposit). 2.5% of the total security deposit shall be released at the time of commissioning and **remaining 2.5% of the total security deposit shall be released after successful completion of 2 years after date of commissioning time of commissioning time of commissioning of O&M period.**

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