



Tamilnadu Science and Technology Centre
(Department of Higher Education, Government of Tamilnadu)
Chennai

Telephones: +91-44-29520375, 91-44-29520782

Website : www.tnstc.gov.in

BID REFERENCE: 01/B1/2022

**TENDER FOR THE SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF
FULL DOME DIGITAL PLANETARIUM PROJECTION SYSTEM FOR
ANNA SCIENCE CENTRE – PLANETARIUM, TIRUCHIRAPALLI – 620 007**

LAST DATE FOR SUBMISSION OF TENDER : 04.03.2022 at 03.30 PM

NOT TRANSFERABLE

TENDER NOTICE

INTERNATIONAL COMPETITIVE BIDDING

Invitation to Bid for Supply, Installation, Testing & Commissioning of Full Dome Digital Planetarium Projection system for Anna Science Centre-Planetarium, Tiruchirapalli – 620 007.

1.	Tender inviting Authority, Designation and Address	Executive Director Tamilnadu Science and Technology Centre Gandhimandapam Road, Chennai-600025. URL: www.tnstc.gov.in
2.	A) Name of the Work	Supply, Installation, Testing & Commissioning of Full Dome Digital Planetarium Projection system
	B) Tender Reference	01/B1/2022
	C) Place of execution	Anna Science Centre–Planetarium, Tiruchirapalli-620007
3.	Tender documents available place and due date for obtaining tender	On all working days between 11.00 A.M. and 3.00 P.M. up to 04.03.2022 from the Address mentioned in column (1) above. Alternatively, Tender documents can be downloaded free of cost from https://www.tnstc.gov.in and www.tenders.tn.gov.in .
	Cost of Tender Document	INR 5765/- (Including taxes) per Tender Document for direct purchase from TNSTC. In that case, the tenderer has to enclose a DD for the cost of original tender form as above, favouring the Executive Director, Tamilnadu Science and Technology Centre, Chennai towards the cost of the Tender form. Tender document is also available for downloading at our website www.tnstc.gov.in & www.tenders.tn.gov.in .
4.	Earnest Money Deposit (EMD)	Rs.2,00,000/- (Rupees Two Lakhs only) - Demand Draft.
5.	Due Date, Time and Place of submission of Tender	On 04.03.2022 3.30pm at the address mentioned in column (1) above.
6.	Date, Time and Place for opening of the Technical Bids	On 04.03.2022 at 4.00 P.M. at the address mentioned in column (1) above.
	1. Eligibility Criteria: Please refer to the Tender Document. 2. Two Bid System (i.e.,) Stage – I – Technical Bid; Stage-2 Price Bid opening. 3. Tenders received after due Date and Time will be summarily rejected. 4. Contact Phone No. 91-44-29520375 URL:www.tnstc.gov.in	

**EXECUTIVE DIRECTOR
TAMILNADU SCIENCE AND
TECHNOLOGY CENTRE
CHENNAI 600 025**

Bidder

Executive Director

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**Tamilnadu science and Technology Centre
(Department of Higher Education, Government of Tamilnadu)
Chennai – 600 025**

Telephones: +91-44-29520375, +91-44-29520782

Email: tnstc.science@gmail.com

Website : www.tnstc.gov.in

**TENDER FOR SUPPLY, INSTALLATION, TESTING& COMMISSIONING OF
FULL DOME DIGITAL PLANETARIUM PROJECTION SYSTEM FOR ANNA
SCIENCE CENTRE – PLANETARIUM, TIRUCHIRAPALLI – 620 007**

BID REFERENCE	:	01/B1/2022
DATE OF COMMENCEMENT OF SALE OF BIDDING DOCUMENT	:	20.01.2022
LAST DATE FOR SALE OF BIDDING DOCUMENT	:	04.03.2022
LAST DATE AND TIME FOR DOWNLOAD OF BIDS	:	04.03.2022, 03.00 PM
LAST DATE AND TIME FOR SUBMISSION OF BIDS	:	04.03.2022, 03.30 PM
TIME AND DATE OF OPENING OF TECHNICAL BIDS	:	04.03.2022, 04.00 PM
PLACE OF OPENING OF BIDS	:	Office of the Executive Director Tamilnadu Science and Technology Centre Gandhimandapam Road Chennai-600025
ADDRESS FOR COMMUNICATION	:	Executive Director Tamilnadu Science and Technology Centre Gandhimandapam Road Chennai-600025

Bidder

Executive Director

SECTION I
INVITATION FOR BIDS (IFB)

Bidder

Executive Director

SECTION I : INVITATION FOR BIDS (IFB)

Sealed Tenders in duplicate will be received till **03.30 PM** on **04.03.2022** by the **Executive Director, Tamilnadu Science and Technology Centre, Gandhimandapam Road, Chennai** for supply, installation, testing and commissioning of **Full Dome Digital planetarium projection system for Anna science centre – Planetarium, Tiruchirapalli – 620 007**. Interested eligible Bidders may obtain further information from the office of the Executive Director, Tamilnadu Science and Technology Centre, Gandhimandapam Road, Chennai – 600 025, Tamilnadu, India.

1. A complete set of bidding documents may be purchased by any interested eligible bidder on submission of a written application to the above office and upon payment of a non-refundable fee as indicated below in the form of a Demand Draft in favour of **Tamilnadu Science and Technology Centre, payable at Chennai**.

2. The bidding document may be obtained from the office of **Tamilnadu Science and Technology Centre, Gandhimandapam Road, Chennai-600 025**, during office hours namely, from **11.00 hours to 15.00 hours** on all working days either in person or by post.

- | | | | |
|----|---|---|--|
| a) | Price of bidding document
(Non-refundable) | : | Rs.5,725/-
(Inclusive of all taxes) |
|----|---|---|--|

In that case, the tenderer has to enclose a DD for the cost of original tender form as above, favouring the Executive Director, Tamilnadu Science and Technology Centre, Chennai towards the cost of the Tender form. Tender document is also available for downloading at our website <https://www.tnstc.gov.in> & www.tenders.tn.gov.in.

- | | | | |
|----|---|---|--------------------------|
| b) | Postal charges, inland | : | Rs.200/- (extra) |
| c) | Date of commencement of
Sale of bidding document | : | 20.01.2022 |
| d) | Online Pre-bid meeting | : | 04.02.2022 at 11.00 AM |
| e) | Last date for sale of Bidding
Document | : | 04.03.2022 upto 03.00 PM |
| f) | Last date and time for Receipt
of bids | : | 04.03.2022 03.30 PM |
| g) | Time and date of Opening
of Technical bids | : | 04.03.2022 04.00 PM |

Bidder

Executive Director

- h) Place of opening of bid : Tamilnadu Science and
Technology Centre
Gandhimandapam road,
Chennai-600025
- i) Address for communication : Executive Director
Tamilnadu Science and
Technology Centre
Gandhimandapam Road
Chennai-600025 .

3. The bidders, who have downloaded the bid documents, shall be solely responsible for checking these websites for any addendum/amendment issued subsequently to the bid document and take into consideration the same while preparing and submitting the bids.

4. All bids must be accompanied by a bid security as specified in the bid document and must be delivered to the above office at the date and time indicated above.

5. Bids will be opened in the presence of Bidder's representative, who choose to attend on the specified date and time.

SECTION II
INSTRUCTION TO BIDDERS

SECTION II
INSTRUCTIONS TO BIDDERS

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A. INTRODUCTION

1. Eligible Bidders

1.1 Manufacturers or their authorised representatives are eligible to participate in this tender.

1.2 Government-owned enterprises may participate only if they are legally and financially autonomous, if they operate under commercial law, and if they are not a dependent agency of the **Purchaser**.

2. Cost of Bidding

2.1 The Bidder shall bear all costs associated with the preparation and submission of its bid and **Tamilnadu Science and Technology Centre, Chennai** hereinafter referred to as “**the Purchaser**”, will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

B. THE BIDDING DOCUMENTS

3. Contents of Bidding Documents

3.1 The goods required, bidding procedures and contract terms are prescribed in the Bidding documents. In addition to the Invitation for Bids, the Bidding Documents include:

- a. Instruction to Bidders (ITB);
- b. General Conditions of Contract (GCC);
- c. Special Conditions of Contract (SCC);
- d. Schedule of Requirements;
- e. Technical Specifications / Qualification criteria;
- f. Bid Form and Price Schedules;
- g. Bid Security form
- h. Contract Form;
- i. Performance Security Form;
- j. Performance statement and
- k. Manufacturer's Authorisation Form

3.2 The Bidder is expected to examine all instructions, forms, terms and specifications in the Bidding Documents. Failure to furnish all information required by the Bidding Documents or submission of a bid not substantially

responsive to the Bidding Documents in every respect will be at the Bidder's risk and may result in rejection of its bid.

4. Clarification of Bidding Documents

4.1 A prospective Bidder requiring any clarification of the Bidding Documents may notify the **Purchaser** in writing or by telex or cable at the **Purchaser's** mailing address indicated in the Invitation for Bids. The **Purchaser** will respond in writing to any request for clarification of the Bidding Documents which it receives not later than 7 days prior to the deadline for submission of bids prescribed by the **Purchaser**. Written copies of the **Purchaser's** response (including an explanation of the query but without identifying the source of inquiry) will be sent to all prospective Bidders which have received the bidding documents.

4.2 Online Pre-Bid Meeting:

The bidder or his official representative is invited to attend a pre-bid meeting which will take place at the office of Executive Director, Tamilnadu Science and Technology Centre, Gandhimandapam Road, Chennai-25 , *India* on 04.02.2022 **at 11.00 AM.**

- α) The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- β) The Bidder is requested to submit any questions in writing or by cable to reach the **Purchaser** not later than **3 days before the meeting.**
- χ) Minutes of the meeting, including the text of the questions raised (without identifying the source of enquiry) and the responses given will be transmitted without delay to all purchasers of the bidding documents.
- δ) Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

5. Amendment of Bidding Documents

- 5.1 At any time prior to the deadline for submission of bids, the **Purchaser** may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the Bidding Documents by an amendment.
- 5.2 All prospective bidders who have received the Bidding Documents will be notified of the amendment in writing or by cable and will be binding on them.
- 5.3 In order to allow prospective bidders reasonable time in which to take the amendment into account in preparing their bid, the **Purchaser** may, at its discretion, extend the deadline for the submission of bids.

C. PREPARATION OF BIDS

6. Language of Bid

- 6.1 The Bid prepared by the bidder and all correspondence and documents relating to the bid exchanged by the Bidder and the **Purchaser**, shall be written in the English language. Supporting documents and printed literature furnished by the Bidder may be written in another language provided they are accompanied by an accurate translation of the relevant passages in the English language in which case, for purposes of interpretation of the Bid, the English translation shall govern.

7. Documents Comprising the Bid

- 7.1 The bid prepared by the Bidder shall comprise the following components:
- (a) a Bid Form and Price Schedule completed in accordance with ITB Clauses 8, 9 and 10;
 - (b) documentary evidence established in accordance with ITB Clause 11 that the Bidder is eligible to bid and is qualified to perform the contract if its bid is accepted;
 - (c) documentary evidence established in accordance with ITB Clause 12 that the goods and ancillary services to be supplied by the Bidder shall conform to the Bidding Documents; and
 - (d) Bid Security furnished in accordance with ITB Clause 13.

8. Bid Form

- 8.1 The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the bidding documents, indicating for the goods to be supplied, a brief description of the goods, their country of origin, quantity and prices.

9. Bid Prices

- 9.1 The Bidder shall indicate on the Price Schedule the unit prices and total Bid prices of the goods it proposes to supply under the Contract.
- 9.2 Prices indicated on the Price Schedule shall be entered separately in the following manner:
- (i) The price of the goods, including all duties and sales and other taxes already paid or payable:

(ii) any purchaser-country sales and other taxes which will be payable on the goods if this contract is awarded;

(iii) charges for inland transportation, insurance and other local costs incidental to delivery of the goods to their final destination; and

(iv) the cost of incidental services listed in Clause 7 of the Special Conditions of Contract.

9.3 The Bidders separation of the price components in accordance with ITB Clause 9.2 above will be solely for the purpose of facilitating the comparison of bids by the **Purchaser** and will not in any way limit the **Purchaser's** right to contract on any of the terms offered.

9.4 Fixed price: Prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation on any account. A bid submitted with an adjustable price quotation will be treated as non-responsive and rejected, pursuant to ITB Clause 22.

9.5 The **Purchaser** will arrange to get the Customs Duty on the Supplies to be made, be exempted from Government Authorities and certificate to the effect will be provided to the bidder on award of contract. Any other duties / levies , customs clearance charges (**TNSTC is having customs duty exemption certificate**) and other charges, loading, unloading during shipment and clearance , container clearance charges if any towards clearance of the consignment except customs duty should be borne by the Bidder / Supplier. It is the sole responsibility of the Bidder / Supplier to clear the consignment on behalf of Tamilnadu Science and Technology Centre.

10. Bid Currencies

10.1 Prices shall be quoted in Indian Rupees/EURO/USD. For indigenous items the price should be quoted in INR.

11. Documents establishing bidder's eligibility and qualifications

11.1 Pursuant to ITB Clause 7, the bidder shall furnish, as part of its bid, documents establishing the bidder's eligibility to bid and its qualifications to perform the Contract if its bid is accepted.

11.2 The documentary evidence of the Bidder's qualifications to perform the Contract if its bid is accepted, shall establish to the **Purchaser's** satisfactions.

(a) that, in the case of a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the

Bidder has been duly authorized (as per authorization form in Section XII) by the goods manufacturer or produce to supply the goods in India.

(b) that the bidder has the financial, technical and production capability necessary to perform the Contract and meets the criteria outlined in the qualification requirements specified in Section VI-A. To this end, all bids submitted shall include the following information:

(i) The legal status, place of registration and principal place of business of the company or firm or partnership, etc;

(ii) Details of experience and past performance of the bidder on equipment offered and on those of similar nature within the past five years and details of current contracts in hand and other commitments (suggested proforma given in Section X)

12. Documents establishing goods conformity to bidding documents

12.1 Pursuant to ITB Clause 7, the Bidder shall furnish, as part of its bid, documents establishing the conformity to the bidding documents of all goods and services which the bidder proposes to supply under the contract.

12.2 The documentary evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings and data and shall consist of:

(a) a detailed description of the essential technical and performance characteristics of the goods;

(b) a list giving full particulars, including available sources and current prices of all spare parts, special tools, etc., necessary for the proper and continued functioning of the goods for a period of three years, following commencement of the goods used by the **Purchaser**; after the warranty period and

(c) an item-by-item commentary on the **Purchaser's** Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.

12.3 For the purpose of the commentary to be furnished pursuant to ITB Clause 12.2(c) above, the Bidder shall note that standards for workmanship, material and equipments and references to brand names or catalogue numbers designated by the **Purchaser** in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may

substitute alternative standards, brand names and/or catalogue numbers in its bid, provided that it demonstrates to the **Purchaser's** satisfaction that the substitutes are substantially equivalent or superior to those designated in the Technical Specifications.

13. Bid Security / Performance Security

13.1 Pursuant to ITB Clause 7, the Bidder shall furnish, as part of its bid, bid security for the amount as indicated in Section IV Special Conditions of Contract.

13.2 The bid security is required to protect the **Purchaser** against risk of Bidder's conduct which would warrant the security's forfeiture, pursuant to ITB Clause 13.7.

13.3 The bid security shall be in Indian Rupees and shall be in the following form :

Demand draft obtained from any scheduled bank in India in favour of Tamilnadu Science and Technology Centre, payable at Chennai.

13.4 Any bid not secured in accordance with ITB Clauses 13.1 and 13.3 above will be rejected by the **Purchaser** as non-responsive, pursuant to ITB Clause 22.

13.5 Unsuccessful bidders' bid security will be discharged/returned as promptly as possible but not later than 30 days after the expiration of the period of bid validity prescribed by the **Purchaser**, pursuant to ITB Clause 14.

13.6 The successful bidder's bid security will be discharged upon the bidder's signing the contract, pursuant to ITB Clause 30, and furnishing the security, pursuant to ITB Clause 31.

13.7 The bid security may be forfeited:

(a) If a bidder withdraws his / her bid during the period of bid validity specified by the Bidder on the Bid form;

(or)

(b) In case of a successful bidder, if the bidder fails:

- (i) to sign the contract in accordance with ITB Clause 30; or
- (ii) to furnish performance security in accordance with ITB Clause 31.

14 Period of Validity of Bids

- 14.1 Bids shall remain valid for a period of six months from the date of opening of bids prescribed by the **Purchaser**, pursuant to ITB Clause 17. A bid valid for a shorter period may be rejected by the **Purchaser** as non-responsive.
- 14.2 In exceptional circumstances, the **Purchaser** may solicit the bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (or by cable or telex). The bid security provided under ITB Clause 13 shall be suitably extended. A bidder may refuse the request without forfeiting their bid security. A bidder granting the request is not required or permitted to modify its bid.

15 Format and Signing of Bid

- 15.1 The bidder shall prepare the bids as two parts viz. technical bid (Cover A) and the price bid (Cover B) and placed in separately sealed covers clearly marking "Technical bid" and "Price bid" as appropriate.
- 15.2 The bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorised to bind the Bidder to the Contract. The letter of authorisation shall be indicated by written power-of-attorney accompanying the bid. All pages of the bid, except for unamended printed literature, shall be initialed by the person or persons signing the bid.
- 15.3 Any interlineations, erasures or overwriting shall be valid only if they are initialed by the person or persons signing the bid.

D. SUBMISSION OF BIDS

16 Sealing and Marking of Bids

- 16.1 The bidder shall seal the "**Technical bid**" and "**Price bid**" in separate inner envelopes only making the envelopes as "Technical bid" and "Price bid". He shall then place these two inner envelopes in an outer envelope.

- 16.2 The inner envelopes and outer envelopes and the cover shall be:

- (a) addressed to the **Purchaser** at the following address:

Tamilnadu Science and Technology Centre.,
Gandhimandapam Road,
Chennai-600025
India

Bidder

Executive Director

- (b) bear the project name, the invitation for bids (IFB) number and the words **“Do not open before 04.00 PM on 04.03.2022”**

- 16.3 The inner envelopes shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared “late”.
- 16.4 If the cover containing the outer envelope is not sealed and marked as required by ITB Clause 16.2, the **Purchaser** will assume no responsibility for the bid’s misplacement or premature opening.
- 16.5 Telex, cable, email or facsimile bids will be rejected.

17 Deadline for Submission of Bids

- 17.1 Bids must be received by the **Purchaser** at the address specified under ITB Clause 16.2 not later than the time and date specified in the Invitation of Bids (Section I). In the event of the specified date for the submission of bids being declared a holiday for the **Purchaser**, the bids will be received upto the appointed time on the next working day.
- 17.2 The **Purchaser** may, at his discretion, extend this deadline for submission of bids by amending the bid documents in accordance with ITB Clause 5, in which case all rights and obligations of the purchaser’s and bidders’ previously subjected to the deadline, will thereafter be subjected to the deadline as extended.

18 Late Bids

- 18.1 Any bid received by the **Purchaser** after the deadline for submission of bids prescribed by the **Purchaser**, pursuant to ITB Clause 17, will be rejected and/or returned unopened to the Bidder.

19 Modification and Withdrawal of Bids

- 19.1 The bidder may modify or withdraw its bid after the bids submission, provided that written notice of the modification or withdrawal is received by the **Purchaser** prior to the deadline prescribed for submission of bids.
- 19.2 The bidders modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions of ITB Clause 16. A withdrawal notice may also be sent by telex or cable but followed by a signed confirmation copy, post marked not later than the deadline for submission of bids.
- 19.3 No bid may be modified subsequent to the deadline for submission of bids.

- 19.4 No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the bidder on the bid form. Withdrawal of a bid during this interval may result in the bidders forfeiture of its bid security, pursuant to Clause 13.7

E. BID OPENING AND EVALUATION

20 Opening of Bids by Purchaser

- 20.1 The **Purchaser** will open only the Technical bids (Cover A) of all bids, in the presence of bidder's representatives who choose to attend, at **04.00 PM on 04.03.2022** at the following location:

**Tamilnadu Science and Technology Centre,
Gandhimandapam Road,
Chennai-600025 , India**

The bidders' representatives who are present shall sign a register evidencing their attendance. In the event of the specified date of bid opening being declared a holiday for the **Purchaser**, the bids shall be opened at the appointed time and location on the next working day.

- 20.2 The bidders names, modifications, bid withdrawals and the presence or absence of the requisite bid security and such other details as the **Purchaser**, at its discretion, may consider as appropriate will be announced at the opening. No bid shall be rejected at bid opening, except for late bids, which shall be returned unopened to the bidder pursuant to ITB Clause 18.
- 20.3 The **Purchaser** will prepare minutes of the bid opening.
- 20.4 The **“Price Bid” (Cover B)** will be opened after evaluation of **“Technical bids” with EMD (Cover A)** and the date and time will be intimated to bidders whose bids are responsive and who are selected by the **Purchaser**.

21 Clarification on Bids

- 21.1 During evaluation of bids, the **Purchaser** may, at its discretion, ask the bidder for clarification of its bid. The request for clarification and the response shall be in writing. Unless the purchaser asks for change in price due to the clarifications sought the bidder is not permitted to alter the price furnished in the **“Price bid” “Cover B”**. The change in price shall be submitted in a separately sealed cover with marking in the cover **“supplemental price bid”** before opening of the **“original price bid”**.

22 Preliminary Examination

- 22.1 The **Purchaser** will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order. Bids from Representatives, without proper authorisation from the manufacturer as per Section XII, shall be treated as non-responsive.
- 22.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the supplier does not accept the correction of errors, its bid will be rejected. If there is a discrepancy between words and figures, the amount in words will prevail.
- 22.3 The **Purchaser** may waive any minor informality or non-conformity or irregularity in a bid which does not constitute a material deviation, provided such a waiver does not prejudice or affect the relative ranking of any bidder.
- 22.4 Prior to the detailed evaluation, pursuant to Clause ITB 23, the **Purchaser** will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these clauses a substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations. Deviations from or objections or reservations to critical provisions such as those concerning Performance Security (GCC Clause 6), Warranty (GCC Clause 14), Force Majeure (GCC Clause 24), Applicable law (GCC Clause 29) and Taxes and Duties (GCC Clause 31) will be deemed to be material deviation. The purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- 22.5 A bid determined as not substantially responsive will be rejected by the **Purchaser** and may not subsequently be made responsive by the bidder by correction of non-conformity.

23 Evaluation and Comparison of Bids

- 23.1 The **Purchaser** will evaluate and compare bids previously determined to be substantially responsive, pursuant to ITB Clause 22.
- 23.2 The purchasers evaluation of a bid will take into account, in addition to the bid price (ex-factory/ex-warehouse/off-the-shelf price of the goods offered from within India, such price to include all costs as well as duties and taxes paid or payable on components and raw material incorporated or to be incorporated in the goods, and excise duty on the finished goods, if payable) and price of incidental services, the following factors, in the

Bidder

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manner and to the extent indicated in ITB Clause 23.3 and in the technical specifications:

- (a)
 - i) cost of inland transportation, insurance and other costs within India incidental to the delivery of goods to their final destination;
 - ii). The comprehensive annual maintenance charges for a period of 3 years subsequent to free guarantee period of three years.
- (b) delivery schedule offered in the bid;
- (c) deviations in payment schedule from that specified in the special conditions of contract
- (d) the availability of spares to the purchaser in India of spare parts and after-sales services for the equipment offered in the bid.

i) **Manufacturer Bidders :-**

- a. An undertaking for the uninterrupted supply of adequate spares at least for a period of 10 years shall be furnished.
- b. Availability/ establishment of after sales service facility in India to ensure uninterrupted after sales service during warranty and maintenance period shall be confirmed. The details of service facility available / proposed to be set up shall be furnished in their bid.

ii) **Non-Manufacturer Bidder:-**

- a. The bidder shall furnish an undertaking for the uninterrupted supply of adequate spares at least for a period of 5 years with the backup undertaking from their manufacturer.
- b. Availability/ establishment of after sales service facility to ensure uninterrupted after sales service during warranty and maintenance period shall be confirmed. The details of service facility available / proposed to be set up shall be furnished in their bid.

23.3 Pursuant to ITB Clause 23.2 the following evaluation methods will be applied:

- (a) Inland transportation, ex-factory/ from port-of-entry, insurance and incidentals.

Inland transportation, insurance and other incidentals, for delivery of goods to the project site as stated in ITB Clause 9.2 (iii).

The bid price should be inclusive of the above costs will also be added to the bid price.

(b) Delivery schedule:

The **Purchaser** desires to have delivery of the goods covered under the invitation, at the time specified in the schedule of requirements. The estimated time of the arrival of the goods at the project site should be calculated for each bid after allowing for reasonable transportation time. Treating the bid offering the scheduled time of arrival as the base, a delivery “adjustment” will be calculated for other bids at 2% of the ex-factory price for each month of delay beyond the base and this will be added to the bid price for evaluation. No credit will be given to earlier deliveries and bids offering delivery beyond 2 months of stipulated delivery will be treated as unresponsive.

(c) Deviation in Payment Schedule:

The special conditions of contract indicate the payment schedule offered by the **Purchaser**. If a bid deviates from the schedule and if such deviation is considered acceptable to the **Purchaser**, the bid will be evaluated by calculating interest earned for any earlier payments involved in the terms outlined in the bid as compared to those stipulated in this invitation at a rate of 12% per annum.

(d) Spare parts and after sales service facilities in India:

The cost of the **Purchaser** of establishing the minimum service facilities and parts inventories, as outlined elsewhere in the bid invitation, if quoted separately, shall be added to the bid price.

(e) Annual Maintenance Contract (AMC):

i. The purchaser desires to have a comprehensive maintenance contract for a period of three years after the expiry of free maintenance period of 3 years. Bidders should clearly indicate year wise comprehensive maintenance charges in the price schedule which shall be added to the bid price at a discount rate. **Bids without this charges will be considered as non-responsive.**

ii. Any major repair pointed out by the **Purchaser** shall be rectified by the Supplier from the date of intimation within a period of 3 calendar days and commission the equipment to the satisfaction of the Purchaser.

24 Contacting the purchaser

- 24.1 Subject to ITB Clause 21, no bidder shall contact the **Purchaser** on any matter relating to its bid, from the time of bid opening to the time the contract is awarded.
- 24.2 Any effort by a bidder to influence the **Purchaser** in the **Purchaser's** bid evaluation, bid comparison or contract award decisions may result in rejection of the bidders bid.
- 24.3 The bidders shall not make attempts to establish unsolicited and unauthorized contact with the Tender accepting authority, Tender Inviting Authority or Tender Scrutiny Committee after opening of the bids and prior to the notification of award and any attempt by any bidder to bring to bear extraneous pressures on the Tender Accepting Authority bidder shall be sufficient reason to disqualify the bidder.
- 24.3 Notwithstanding anything contained in clause 24.3 above pursuant to ITB clause 21, the Tender Inviting Authority or the Tender Accepting Authority, may seek bona fide clarifications from bidders relating to the bids submitted by them during the evaluation of bids.

F. AWARD OF CONTRACT

25 Post Qualification

- 25.1 In the absence of pre-qualification, the **Purchaser** will determine to its satisfaction whether the bid that is selected as having submitted the lowest evaluated responsive bid meets the criteria specified in ITB Clause 11.2 (b) and is qualified to perform the contract satisfactorily.
- 25.2 The determination will take into account the bidders financial, technical and production capabilities. It will be based upon an examination of the documentary evidence of the bidders' qualifications submitted by the bidder, pursuant to ITB Clause 11 as well as such other information as the **Purchaser** deems necessary and appropriate.
- 25.3 An affirmative determination will be a prerequisite for award of the contract to the bidder. A negative determination will result in rejection of the bidder's bid, in which event the **Purchaser** will proceed to the next lowest evaluated bid to make a similar determination of that bidder's capabilities to perform satisfactorily.

26 Award Criteria

- 26.1 Subject to ITB Clause 28, the **Purchaser** will award the contract to the successful bidder whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid, provided further that the bidder is determined to be qualified to perform the contract satisfactorily.

27 Purchaser's right to vary quantities at time of award

- 27.1 The **Purchaser** reserves the right at the time of award of contract to increase or decrease the quantity of goods and services originally specified in the schedule of requirements without any change in unit price or other terms and conditions.

28 Purchaser's right to accept any bid and to reject any or all bids

- 28.1 The **Purchaser** reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for the purchaser's action.

29 Notification of Award

- 29.1 Prior to the expiration of the period of bid validity, the **Purchaser** will notify the successful bidder in writing by registered letter or by cable or telex, to be confirmed, that its bid has been accepted.
- 29.2 The notification of award will constitute the formation of the contract.
- 29.3 Upon the successful bidders furnishing of performance security pursuant to ITB Clause 31, the **Purchaser** will promptly notify each unsuccessful bidder and will discharge its bid security, pursuant to ITB Clause 13.

30 Signing of Contract

- 30.1 At the same time as the **Purchaser** notifies to the successful bidder that his bid has been accepted, the **Purchaser** will send to the bidder the contract form provided in the bidding documents, incorporating all agreements between the parties.
- 30.2 Within 10 days of receipt of notification of award, the successful bidder shall sign the contract agreement, for the supply and installation and also for the comprehensive AMC contract as applicable after the warranty period.

31 Performance Security

- 31.1 Within 7 days of the receipt of notification of award from the **Purchaser**, the successful bidder shall furnish the performance security in accordance

with the conditions of contract, in the performance security form provided in the bidding documents or in another form acceptable to the **Purchaser**.

- 31.2 Failure of the successful bidder to comply with the requirement of ITB Clause 30 or ITB Clause 31 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the **Purchaser** may make the award to the next lowest evaluated bidder or call for new bids.

32. **Fraud and corruption**

It is **purchaser's** policy to require that the bidders, suppliers and contractors and their subcontractor observe the highest standard of ethics during the procurement and execution of such contracts.¹ In pursuance of this policy, the **purchasers**;

- (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) **“corrupt practice”**² is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - (ii) **“fraudulent practice”**³ is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
 - (iii) **“collusive practice”**⁴ is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
 - (iv) **“coercive practice”**⁵ is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - (v) **“obstructive practice”** is
 - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false

¹ In this context, any action taken by a bidder, supplier, contractor, or a sub-contractor to influence the procurement process or contract execution for undue advantage is improper.

² “another party” refers to a public official acting in relation to the procurement process or contract execution]. In this context, “public official” includes staff and employees of other organizations taking or reviewing procurement decisions.

³ a “party” refers to a public official; the terms “benefit” and “obligation” relate to the procurement process or contract execution; and the “act or omission” is intended to influence the procurement process or contract execution.

⁴ “parties” refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.

⁵ a “party” refers to a participant in the procurement process or contract execution.

statements to investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or

(bb) acts intended to materially impede the exercise of the purchaser's inspection and audit rights provided for under sub-clause 32 (e) below.

- (b) will reject a proposal for award if it determines that the bidder considered for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question;
- (c) will cancel the contract if the purchaser determines at any time that the bidder, supplier and contractors and their sub-contractors engaged in corrupt, fraudulent, collusive, or coercive practices.
- (d) will sanction a firm or individual, including declaring ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for, or in executing, a contract; and
- (e) will have the right to inspect the accounts and records of the bidders, supplier, and contractors and their subcontractors and to have them audited by auditors appointed by the purchaser.

Furthermore, Bidders shall be aware of the provision stated in Sub Clause 32 of the General Conditions of Contract.

33. Appeal

33.1 This tender is governed by the provisions of Tamilnadu Transparency in Tenders Act 1998 and the Rules thereunder.

32.2 Any tenderer aggrieved by the order passed by the Tender Accepting Authority under section 10 of the said Act, may appeal to the Government within ten days from the date of receipt of order and the Government shall dispose the appeal within fifteen days from the date of receipt.

33.3 No Appeal shall be preferred while the tender is in process until tender is finalized and Notification of award as stated ITB in clause 29 is completed by the purchaser.

SECTION III
GENERAL CONDITIONS OF CONTRACT

SECTION III: GENERAL CONDITIONS OF CONTRACT

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GENERAL CONDITIONS OF CONTRACT

1. Definitions

1.1 In this contract the following terms shall be interpreted as indicated:

- (a) "The Contract" means the agreement entered into between the **Purchaser** and the Supplier as recorded in the Contract Form signed by the parties, including all the attachments and appendices thereto and all documents incorporated by reference therein;
- (b) "The Contract Price" means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations;
- (c) "The Goods" means all the equipment, machinery, and/or other materials which the Supplier is required to supply to the **Purchaser** under the Contract;
- (d) "Services" means services ancillary to the supply of the Goods, such as transportation and insurance, and other incidental services, such as installation, commissioning, provision of technical assistance, training and other obligations of the Supplier covered under the contract;
- (e) "GCC" means the General Conditions of Contract contained in this section.
- (f) "SCC" means the Special Conditions of Contract.
- (g) "The **Purchaser**" means the Organisation purchasing the Goods, as named in SCC;
- (h) "The Supplier" means the individual or firm supplying the Goods under this Contract;
- (i) "The Project Site", where applicable means the place or places named in SCC.
- (j) "Day" means calendar day.
- (k) "Delivery period" means the period applicable upto completion of supply, installation, testing and commissioning of the equipment by the supplier at the Project site and accepted by the Purchaser.

2. Application

2.1 These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

3. Standards

3.1 The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods country or origin and such standards shall be the latest issued by the concerned institution.

4. Use of Contract Documents and Information

- 4.1 The Supplier shall not, without the **Purchaser's** prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the **Purchaser** in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- 4.2 The Supplier shall not, without the **Purchaser's** prior written consent, make use of any document or information enumerated in GCC Clause 4.1 except for purposes of performing the Contract.
- 4.3 Any document, other than the Contract itself, enumerated in GCC clause 4.1 shall remain the property of the **Purchaser** and shall be returned (in all copies) to the **Purchaser** on completion of the supplier's performance under the Contract if so required by the **Purchaser**.

5. Patent Rights

The Supplier shall indemnify the **Purchaser** against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in India.

6 Performance Security

- 6.1 Within 7 days after the Supplier's receipt of notification of award of the Contract, the Supplier shall furnish performance security to the **Purchaser** for the amount specified in the Special Conditions of Contract.
- 6.2 The proceeds of the performance security shall be payable to the **Purchaser** as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 6.3 The Performance Security shall be denominated in India Rupees and shall be in one of the following forms:
- (a) A Bank guarantee issued by a nationalized/ scheduled bank located in India and in the form provided in the bidding Documents or any other form acceptable to the **Purchaser**; or
 - (b) A cashier's cheque, certified cheque, or demand draft.

- 6.4 The performance security will be discharged by the **Purchaser** and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC.

7. Inspection and Tests

7.1 The **Purchaser** or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract at no extra cost of the **Purchaser**. The Special conditions of Contract and/or the Technical Specifications shall specify what inspections and tests the **Purchaser** requires and where they are to be conducted. The **Purchaser** shall notify the Supplier in writing of the identity of any representatives retained for these purposes.

7.2 The inspections and test may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery and/or at the Goods final destination. When conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance including access to drawings and production data - shall be furnished to the inspectors at no charge to the **Purchaser**.

7.3 Should any inspected or tested Goods fail to conform to the specifications, the **Purchaser** may reject them and the Supplier shall either replace the rejected Goods or make all alterations necessary to meet specification requirements free of cost to the **Purchaser**.

7.4 The Purchaser's right to inspect, test and, where necessary, reject the Goods' arrival in at site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the **Purchaser** or its representative prior to the Goods despatched.

7.5 Nothing in GCC Clause 7 shall in any way release the Supplier from any warranty or other obligations under this Contract.

7.6 Inspection and Audit

- (i) The supplier shall permit the **purchaser** and or persons appointed by the **purchaser** to inspect the supplier's office and / or the accounts and records of the suppliers and its sub contractors relating to the performance of the contract, and to have such accounts and records audited by auditors appointed by the purchaser if required.

The Supplier's attention is drawn to Clause 32, which provides, inter alia, that acts intended to materially impede the exercise of the purchaser inspection and audit rights provided for under Sub-Clause 7.6 (i) constitute a prohibited practice subject to contract termination.

8. Packing

8.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, Where appropriate, the remoteness of the Goods final destination and the absence of heavy handling facilities at all points in transit.

8.2 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, if any, specified in SCC and in any subsequent instructions ordered by the **Purchaser**.

9. Delivery and Documents

9.1 Delivery of the Goods shall be made by the Supplier in accordance with the terms specified by the **Purchaser** in the Notification of Award. The details of despatching and/or other documents to be furnished by the supplier are specified in SCC.

10. Insurance

10.1 The Goods Supplied under the Contract shall be fully insured in INR/USD/EURO as applicable against the loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the Special Conditions of Contract.

11. Transportation

11.1 Where the Supplier is required under the Contract to transport the Goods to the specified place of destination within India defined as Project site, transport to such place of destination in India insurance, as shall be specified in the Contract, shall be arranged by the Supplier, and the related cost shall be included in the Contract Price.

12. Incidental Services

12.1 The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:

- Performance of the on-site assembly and start-up of the supplied Goods;
- furnishing of tools required for assembly and maintenance of the supplied Goods;

- furnishing of detailed operations and maintenance manual (two copies in English Language) for each appropriate unit of supplied Goods.
- performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and training of the Purchaser's Personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance and/or repair of the supplied Goods.

12.2 Prices charged by the Supplier for incidental services, if not included in the contract Price of the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

13. Spare Parts

13.1 As specified in the Special Conditions of Contract, the Supplier may be required to provide any or all of the following materials and notifications and information pertaining to spare parts manufactured or distributed by the Supplier:

- (a) Such spare parts as the **Purchaser** may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
- (b) In the event of termination of production of the spare parts:
 - (i) advance notification to the **Purchaser** of the pending termination, in sufficient time to permit the **Purchaser** to procure needed requirements; and
 - (ii) following such termination, furnishing at no cost to the **Purchaser**, the blueprints, drawings and specifications of the spare parts, if and when requested.

14. Warranty

14.1 The Supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The supplier further warrants that the Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by the **Purchaser's** specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in conditions obtaining in the country of final destination.

14.2 This warranty shall remain valid for Three year after the Goods or any portion thereof as the case may be, from the date of successful

commissioning and handing over at the final destination indicated in the Contract.

14.3 The **Purchaser** shall promptly notify the supplier in writing of any claims arising under this warranty.

14.4 Upon receipt of such notice , the Supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective Goods or parts thereof, without cost to the **Purchaser**.

14.5 If the Supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC within a reasonable period, the **Purchaser** may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the **Purchaser** may have against the Supplier under the contract.

15. Payment

15.1 The method and conditions of payment to be made to the Supplier under the Contract shall be specified in the Special Conditions of Contract.

15.2 The Suppliers request(s) for payment shall be made to the **Purchaser** in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the services performed, and by documents, submitted pursuant to GCC Clause 9, and upon fulfillment of other obligations stipulated in the contract.

15.3 Payment shall be made promptly by the **Purchaser** but in no case later than sixty (60) days after submission of the invoice/claim by the Supplier.

15.4 Payment shall be made in Indian Rupees / USD/ EURO as applicable

16. Prices

16.1 Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any prices adjustments authorized in the special Conditions of Contract or in the **Purchaser's** request for bid validity extensions, as the case may be.

17. Change Orders

17.1 The **Purchaser** may at any time by written order given to the Supplier pursuant to GCC Clause 30, make changes within the general scope of the Contract in any one or more of the following:

- (a) drawings, designs or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the **Purchaser**;
- (b) the method of shipping or packing
- (c) the place of delivery; or
- (d) the services to be provided by the Supplier.

17.2 If any such changes causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the **Purchaser's** change order.

18. Contract Amendments

18.1 Subject to GCC Clause 17, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

19. Assignment

19.1 The Supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the **Purchaser's** prior written consent.

20. Subcontracts

20.1 The supplier shall notify the **Purchaser** in writing of all subcontracts awarded under the contract if not already specified in his bid. Such notification, in his original bid or later, shall not relieve the Supplier from any liability or obligation under the contract.

21. Delays in the Supplier's Performance

21.1 Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the **Purchaser** in its Schedule of Requirements.

21.2 If at any time during the performance of the Contract, the Supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of the Services, the Supplier shall promptly notify the **Purchaser** in writing of the fact of the delay, its likely duration

and its cause(s). As soon as practicable after receipt of the Supplier's notice, the **Purchaser** shall evaluate the situation and may at its discretion extend the Supplier's time for performance with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of the Contract.

21.3 Except as provided under GCC Clause 24, a delay by the Supplier in the performance of its delivery obligation shall render the supplier liable to the imposition of liquidated damages pursuant to GCC Clause 22, unless any extension of time is agreed upon pursuant to GCC clause 21.2 without the application of liquidated damages.

22. Liquidated Damages

22.1 Subject to GCC Clause 24, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the **Purchaser** shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in the SCC. Once the maximum is reached, the **Purchaser** may consider termination of the Contract pursuant to GCC Clause 23.

23. Termination for Default

23.1 (a) The **Purchaser** may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, terminate the Contract in whole or part;

- (i) if the Supplier fails to deliver any or all of the goods within the time period(s) specified in the Contract, or within any extension thereof granted by the **Purchaser** pursuant to clause 21; or
 - (ii) if the Supplier fails to perform any other obligation(s) under the Contract; or
 - (iii) if the supplier, in the judgment of the **Purchaser**, has engaged in fraud and corruption, as defined in GCC clause 32, in competing for or in executing the contract.
- (b) In the event the **Purchaser** terminates the Contract in whole or in part, pursuant to GCC Clause 23.1(a), the **Purchaser** may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the **Purchaser** for any additional costs for such similar Goods.

However, the Supplier shall continue the performance of the Contract to the extent not terminated.

24. Termination for Insolvency

- (a) The **Purchaser** may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the **Purchaser**.

25. Termination for Convenience

- (a) The **Purchaser**, may by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the **Purchaser's** convenience, the extent to which performance of work under the Contract is terminated, and the date upon which such termination becomes effective.
- (b) The Goods that are complete and ready for shipment within 30days after the Supplier's receipt of notice of termination shall be accepted by the **Purchaser** at the Contract terms and prices. For the remaining Goods, the **Purchaser** may elect.
 - (i) to have any portion completed and delivered at the Contract terms and prices; and /or
 - (ii) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

26. Force Majeure

26.1 Notwithstanding the provisions of GCC Clauses 21,22,23, the Supplier shall not be liable for forfeiture of its performance security, liquidation damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

26.2 For purposes of this Clause "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the **Purchaser** either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

- 26.3 If a Force Majeure situation arises, the Supplier shall promptly notify the **Purchaser** in writing of such conditions and the cause thereof. Unless otherwise directed by the **Purchaser** in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

27. Resolution of Disputes

- 27.1 The **Purchaser** and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- 27.2 If, after thirty (30) days from the commencement of such informal negotiations, the **Purchaser** and the Supplier have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms specified in the Special Conditions of Contract. These mechanisms may include, but or not limited to, conciliation mediated by a third Party, adjudication in an agreed national forum, and national arbitration.

28. Governing Language

- 28.1 The contract shall be written in English language. Subject to Clause 29, English language version of the Contract shall govern its interpretation. All correspondence and documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.

29. Applicable Law

- 29.1 The Contract shall be interpreted in accordance with the laws of the Union of India.
- 29.2 The arbitration shall be conducted in accordance with the provisions of the Indian Arbitration Act, 1940 or any statutory modification thereof. The venue of arbitration shall be Chennai of Tamilnadu State in India.

30. Notices

- 30.1 Any notice given by one party to the other pursuant to this Contract shall be sent to other party in writing or by cable, telex or fascimile and confirmed in writing to the other Party's address specified in Special Conditions of Contract.
- 30.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

31. Taxes and Duties

- 31.1 Suppliers shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, insurance etc., incurred until delivery of the contracted Goods to the **Purchaser**.

32. Fraud and corruption

- 32.1 If the Purchaser determines that the Supplier has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, then the Purchaser may, after giving 7 days notice to the Supplier, terminate the Supplier's employment under the Contract and cancel the contract, and the provisions of Clause 23 shall apply as if such termination had been made under clause 23.

- (a) For the purposes of this Sub-Clause:

- (i) "corrupt practice" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
- (ii) "fraudulent practice" is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
- (iii) "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
- (iv) "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- (v) "obstructive practice" is
 - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a purchaser investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or

- (bb) acts intended to materially impede the exercise of the purchaser's inspection and audit rights provided for under Clause 11 [Inspections and Audits by the Bank].

32.2 *Notwithstanding the clause 32 above, Should any employee of the Supplier be determined to have engaged in corrupt, fraudulent, collusive, coercive, or obstructive practice during the purchase of the Goods, then that employee shall be removed.*

SECTION IV
SPECIAL CONDITIONS OF CONTRACT

**SECTION IV: SPECIAL CONDITIONS OF CONTRACT
TABLE OF CLAUSES**

(The corresponding Clause number of the General Conditions is in parentheses)

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SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of contract. The Corresponding clause number of the General Conditions is indicated in parentheses.

1. Definitions(GCC Clause 1)

(a) The ***Purchaser*** is **Tamilnadu Science and Technology Centre, Chennai.**

(b) The Supplier is.....

(c) Project site is the place(s) mentioned in the Schedule of Requirements

2. Performance Security (GCC Clause 6)

2.1 Substitute Clause 6.1 of GCC by the following:

Within 7 days after the supplier's receipt of Notification of Award, the supplier shall furnish performance security to the *Purchaser* for an amount of 5% of the contract value valid upto 60 days after the date of completion of performance obligations including the warranty obligations.

50% of value of Performance security will be discharged by the Purchaser and returned to the supplier not later than 60 days, following the date of completion of the supplier's performance obligation including any warranty obligations. The Balance 50% value of the performance security will be released after entering into a comprehensive maintenance contract after the warranty period and on payment of required performance security for the CMC contract. However in no case, the performance security will be returned before the date of completion of the warranty obligation.

Performance security for Maintenance contract

After successful completion of warranty period of 3 years, the supplier shall furnish performance security for 5% of the comprehensive AMC applicable for 3 years maintenance period valid for 3 years period of maintenance.

2.2 Substitute Clause 6.3 (b) of GCC by the following:

A cashier's cheque or banker's certified cheque or crossed demand draft or pay order drawn in favour of the **Purchaser**.

2.3 Substitute Clause 6.4 of the GCC by the following:

The Performance Security will be discharged by the **Purchaser** and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including the warranty obligations, under the Contract.

2.4 Add Clause 6.5 to the GCC of the following:

In the event of any contract amendment, the supplier shall, within 7 days of receipt of such amendment, furnish the amendment to the Performance Security, rendering the same valid for the duration of the Contract, as amended for further period of 60 days thereafter.

3. Inspection and Tests (GCC Clause 7)

The following inspection procedures and tests are required by the **Purchaser**;

The supplier shall get each equipment inspected in manufacturer's works and submit a test certificate and also guarantee/warranty certificate that the equipment conforms to laid down specifications.

If the equipment fails to meet the laid down specifications the supplier shall take immediate steps to remedy the deficiency or replace the defective equipment to the satisfaction of the **Purchaser**.

4. Packing (GCC Clause 8)

Add as Clause 8.3 of the GCC the following:

Packing Instruction: The Supplier will be required to mark separate packages for each consignment. Each package will be marked on three sides with proper paint/indelible ink, the following:

- i) Project
- ii) Contract No.
- iii) Supplier's Name
- iv) Packing list reference number

5. Delivery and Documents (GCC Clause 9)

Upon delivery of the Goods, the Supplier shall notify the **Purchaser** and the Insurance Company by cable or Telex or fax the full details of shipment including the Contract number, railway receipt number and date, description of Goods, quantity, names of the consignee etc.

The Supplier shall mail the following documents to the **Purchaser**, with a copy to the Insurance Company.

- (i) Three Copies of Supplier invoice (in duplicate) showing Goods description, quantity, unit price, total amount;
- (ii) Receipt / AWB /acknowledgment of receipt of goods from the Consignee(s)
- (iii) Insurance Certificate;
- (iv) Manufacturer's/ Supplier's warranty and test Certificate;

The above documents shall be received by the **Purchaser** before arrival of Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the supplier will be responsible for any consequent expenses.

6. Insurance (GCC Clause 10)

For delivery of goods at site, the insurance shall be obtained by the Supplier in an amount equal to 110% of the value of the goods from "Warehouse to Warehouse" (Final destinations) on "All Risks" basis including War Risks and Strike.

7. Incidental Service (GCC Clause 12)

The following services covered under Clause 12 shall be furnished and the cost shall be included in the contract price:

- (a) Unloading, safe storage and handling of consignment of site.
- (b) On site assembly if any of the supplied goods, installation, testing and commissioning of the equipment.
- (c) Furnishing of detailed operations and maintenance manual for each appropriate unit of supplied Goods;

8. Spare parts (GCC Clause 13)

Add as Clause 13.2 to the GCC the following:

Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods. Other main spare parts and components shall be supplied as promptly as possible but in any case within one week of placement of order.

9. Warranty (GCC Clause 14)

9.1 Substitute GCC Clause 14.2 by the following:-

This warranty shall remain valid for 3 years after goods or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract. The warranty for three years starts from the day of successful commissioning and handing over.

9.2 The Supplier shall, in addition, comply with the performance and/ or consumption guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall at its discretion either:

- (a) make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests in accordance with SCC 3:

10. Payment (GCC Clause 15)

Payment for Goods and Services shall be made in Indian Rupees / foreign currency as follows:

(i) No advance payment is payable.

ii) PAYMENT TERMS:

- a) 50% cost of the equipment will be made by Irrevocable documentary credit with forward rate contract against following documents. Documentary credit for the above amount will be opened immediately after executing the agreement.
 - 1) Invoice in triplicate as per the purchase order.
 - 2) Bill of lading.
 - 3) Packing list.
 - 4) Freight and Insurance clearance.

- 5) The supplier shall get each equipment inspected in manufacturer's works and submit a test certificate and also guarantee/warranty certificate that the equipment conforms to laid down specifications.
- 6) Certificate of Origin.
- 7) Certificate on Shipment of entire material.

- b) Another 40% towards the cost of equipment and entire charges for installation if any will be paid on successful completion of the installation against documents listed below through Documentary credit. Documentary credit for the above amount will be opened once the shipment is ready. This documentary credit will be for a period of six months.

Documents required are:

- 1) Certificate of Acceptance of the Equipment by the Purchaser.
- 2) Certificate of Acceptance of Security Deposit.
- c) Balance 10% will be released after successful completion of the warranty period. This documentary credit will be for a period three years and opened once installation is complete. This amount shall be released on submission of a bank guarantee for an equal amount for the concerned period of six years.

Payments for Indigenous items will be made in INR and rates for which are to be quoted in Indian currency.

For Indigenous items/items for which rates are quoted in Indian rupees, 50% of the cost of the items shall be made after delivery at site against an inspection report (NOC) by an authorized representative of Purchaser. Balance 40% cost of the items and installation charges if any shall be made on successful installation, testing and commissioning. Balance 10% shall be paid after successful completion of warranty period of three years. The tenderer shall be liable to pay liquidated damages for shortfall in progress.

- d) Payment will be made either by means of Cheque or through RTGS (Real Time Gross Settlement System) / Core Banking / NEFT (Net Electronic Fund Transfer).

11. Prices (GCC Clause 16)

Substitute Clause 16.1 of the GCC with the following:

Prices payable to the Supplier as stated in the Contract shall not be subject to adjustment during performance of the Contract.

12. Sub-Contract (Clause 20)

Add at the end of sub-clause 20.1 the following:

Sub-contract shall be only for bought-out items and sub-assemblies.

13. Liquidated Damages (GCC Clause 22)

13.1 For delays:

Substitute GCC Clause 22.1 by the following

Subject to Clause 24, if the Supplier fails to deliver any or all of the Goods or perform of services within the time period(s) specified in the Contract, the **Purchaser** shall without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to 0.5 percent of the delivered price of the delayed Goods or unperformed Services for each week of delay or part thereof until actual delivery or performance, up to a maximum deduction of 10 percent of the delayed Goods or Services contract price. Once the maximum is reached, the **Purchaser** may consider termination of the Contract.

14. Resolution of Disputes (GCC Clause 27)

Add as GCC Clauses 27.3 and 27.4 the following:

27.3 The dispute resolution mechanism to be applied pursuant to GCC Clause 27 shall be as follows:

- (a) In the case of a dispute or difference arising between the **Purchaser** and a Supplier relating to any matter arising out of or connected with this agreement, such dispute or difference shall be settled in accordance with the Arbitration and Conciliation Act 1996 the Arbitral Tribunal shall consist of 3 Arbitrator, one each to be nominated by the **Purchaser** and the supplier. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the parties and shall act as Presiding Arbitrator. In case of failure of the two Arbitrator appointed by the parties to reach upon a consensus with in a period of 30 days from the appointment of the Arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the Principal Secretary, Department of Higher Education, Government of Tamilnadu, India.

27.4 The venue of arbitration shall be the place from where the Contract is issued (ie.) Chennai.

15. Notices (clause 30)

For the purpose of all notices, the following shall be the address of the **Purchaser** and Supplier respectively.

Purchaser: Executive Director

Tamilnadu Science and Technology Centre

Gandhimandapam Road, Chennai-600025, India

Supplier:

(To be filled in at the time of Contract signature)

16. Annual Maintenance Contract (AMC):

16.1 The supplier shall undertake at least one preventive maintenance visit per quarter and attend to all break down calls. The payment for the maintenance services will be made at the end of each quarter based on the certificate from the end user for completion of preventive maintenance and break down maintenance as per schedule.

16.2 An uptime guarantee of 95% shall be maintained out of total usage period of the equipment by the end users during warranty and maintenance period.

16.3 Any major repair pointed out by the **Purchaser** shall be rectified by the Supplier from the date of intimation within a period of 3 calendar days and commission the equipment to the satisfaction of the Purchaser. Failing which the Purchaser has a right to levy a penalty on the Supplier a sum of Rs.10,000/- per day or part thereof for each equipment until the equipments are repaired and commissioned to the satisfaction of the Purchaser.

16.4 The Supplier shall indicate clearly the free guarantee maintenance of the whole system supplied by the Supplier and the same should not be less than 3 years.

16.5 The Supplier shall also indicate separately post guarantee maintenance cost of the entire system for 3 years subsequent to free maintenance period and shall clearly indicate year wise maintenance cost with probable cost of spares required for each year, in addition to comprehensive maintenance charges.

16.6 The scope of comprehensive Annual Maintenance Contract shall include replacement of all parts without any exclusion. The supplier shall undertake at least one Preventive Maintenance Service per quarter of the

year and attend to all break down maintenance calls. The payment for the comprehensive maintenance will be made at the end of each quarter against certification from the end user for satisfactory completion of Preventive Maintenance within the quarter and attending the breakdown calls within the stipulated period of 3 days from the date of intimation.

17. Enclosures to Bid:

17.1 Technical bid (Cover A):

Technical Bid shall include the duly filled up Tender documents along with

- a) Bid Security.
- b) Duly attested copy of License if any, approved by the concerned Licensing Authority.
- c) For Importers Photocopy of License renewed upto date.
- d) Documentary evidence of constitution of firm such as Memorandum of Articles, Partnership Deed, etc., with details of Name, Address, Tel. No., Fax No., E-mail Address of firm and the Managing Director / Partner / Proprietor.
- e) Authorisation of senior responsible officer of the Company to transact business.
- f) Annual turnover statement last for three years certified by the Auditor.
- g) Copies of Balance Sheet and Profit & Loss Account for three years certified by the Auditors.
- h) GST / Sales Tax clearance Certificate as on 31.03.2021.
- i) Notarised statement of the Installed manufacturing capacity of the Items quoted.
- j) Qualification Criteria – Section VI-A
- k) Performance Statement - Section X
- l) Manufacturer's Authorisation Form - Section XI
- m) Technical literature and other documents in support of the goods / services.
- n) Any deviations
- o) List of items quoted (without prices)
- p) In case of critical equipment, the supplier shall give a certificate to the effect that the equipment does not have any capability to remotely observe or access. If called for by the purchaser a verification and certificate of this claim shall be given by a 3rd party.

17.2 Price Bid (Cover B):

Price bid shall include

- a) Duly filled in Price Schedule - Section VII
- b) Bid Form

Please note that the Bidder run the risk of his bid being rejected if the Price Schedule contains any conditions.

SECTION V
SCHEDULE OF REQUIREMENTS

SECTION – V

SCHEDULE OF REQUIREMENTS

Supply, installation, testing and commissioning of the following Planetarium Equipment at site (Anna Science Centre- Planetarium, Tiruchirapalli – 620 007) as per the detailed requirements under section VI

Sl.No	Description
A.	Full dome Digital Planetarium Projection System complete with all standard accessories and programmes
B	Proper cleaning the existing 8m perforated dome with special solvents without affecting the perforations and maintain acoustics property. The quality and specifications of the cleaning solution, its property are to be clearly mentioned. The method of cleaning is to be clearly narrated.
C	Repainting the existing inner projection dome using recommended paint without affecting the perforations and maintain acoustics property. The quality and specifications of the paint, its property are to be clearly mentioned. The method of cleaning, ,number of times the process is to be repeated, no of coats of painting, the special equipment to be used for painting and quality assurance are to be clearly narrated.

Delivery Schedule: - Four months from the date of purchase order.

Place of Delivery:- The above items are to be delivered at Anna Science Centre- Planetarium, Tiruchirapalli – 620 007.

Bidder

Executive Director

SECTION VI
TECHNICAL SPECIFICATIONS

SECTION VI : TECHNICAL SPECIFICATIONS

SPECIFICATIONS FOR FULL DOME
DIGITAL PLANETARIUM PROJECTION SYSTEM
FOR
ANNA SCIENCE CENTRE – PLANETARIUM, TIRUCHIRAPALLI – 620 007

Supply, Installation, testing and commissioning of Full Dome Digital Planetarium Projection System by reputed Indian or foreign vendors with the following specifications at **Anna Science Centre- Planetarium, Tiruchirapalli – 620 007, India** in the existing sky theatre.

1) Projection dome Screen

- Option - a)** Proper cleaning the existing 8m perforated dome with special solvents without affecting the perforations and maintain acoustics property. The quality and specifications of the cleaning solution, its property are to be clearly mentioned. The method of cleaning is to be clearly narrated.
- Option - b)** Repainting the existing inner projection dome using recommended paint without affecting the perforations and maintain acoustics property. The quality and specifications of the paint, its property are to be clearly mentioned. The method of cleaning, ,number of times the process is to be repeated, no of coats of painting, the special equipment to be used for painting and quality assurance are to be clearly narrated.

The vendor should arrange for required scaffolding structures and any other support structures for scaffolding to carry out the above work.

The Purchaser reserves the right to select suitable option given above.

2) Digital Planetarium System

- A) Full Dome Digital Projection System with all required mounting racks/ structures for suitable projection on the dome for the projectors need to be provided with auto-calibration video projector alignment system for the options furnished below. Perforations or opening in the screen are categorically excluded.

The Purchaser reserves the right to select suitable option.

- B) There should be a console for control of all projector elements and systems. The console should also have the provision to automatically control all the subsystems containing sufficient display screens operate all the software.
- C) The required electrical cabling and signal cabling installation must be carried out by the supplier. The electrical installations must be carried out by qualified electricians in compliance with usual electrical standards. All cables should have 20% extra length in order to allow modifications of the equipment location in case of rearranging bays or technical furnitures. Cable trays, cabinets and racks will also be oversized by 20% to allow future hardware extensions or any rearrangements.

OPTION I

- 1) The digital video projectors – 2 Nos used need to be of reputed make and they are to be cove mounted. Projection technology should be Laser Phosphor / LED. One spare projector without lens may be considered for procurement.
- 2) The dual projectors need to be placed on the periphery of the dome.
- 3) The brand name, model, resolution, standard, brightness, technology, Lamp life etc. should be mentioned in the offer and manuals with all technical data of projectors should be supplied.
- 4) The life of the light source should be a minimum of 20,000 hours.
- 5) The brightness required should be not less than 5000 ANSI lumens (for individual projectors) with a contrast ratio of minimum 20,000:1 with 4096 x 2160 pixels resolution (for individual projectors) or higher from reputed manufacturers. In case of bidder submitting a projector model using E shift technology, wobulation, interpolation or equivalent, the resolution calculation would be based on the native resolution of the projector and not on the maximum value.

The final system brightness should be a uniform white luminance across the dome.

- 6) The system should be capable of providing at least 13 mega pixels resolution on the screen with 10% tolerance (net) on the dome after edge blending and overlapping with ability to display and interactively position flatscreen video and fulldome images on the dome.
- 7) The required hardware and software to interface these projectors to the console both manually and using computers are to be provided.
- 8) The system must have software and hardware to adjust and calibrate the geometric alignment, brightness uniformity and edge blending of the digital projection systems automatically and must be integrated into the show manager software.
- 9) Video synchronization: all video channels delivering the projected full-dome image must present frame synchronized content (rather than simply gen-locking video signals from asynchronous content).
- 10) The required hardware and software to interface these projectors to the console using computers are to be provided. The details of the computer system including processor and memory both RAM and auxiliary memories need to be mentioned. The PCs should be of Industrial grade and the make and model need to be clearly informed in the offer. Two additional hard drives for each projector to be supplied as backup. The necessary hardware should include 2 client computer for the projectors with a spare computer, GUI server, one storage computer with 22TB and a remote service PC for remote servicing with rack.
- 11) The projectors also need to be with latest technology incorporated for projecting full dome digital video shows for immersive experience.

OPTION II

- 1) The digital video projectors – 2 Nos used need to be of reputed make and they are to be ceiling mounted. Projection technology should be Laser Phosphor / LED. One spare projector without lens may be considered for procurement.
- 2) The dual projectors need to be placed on the periphery of the dome.
- 3) The brand name, model, resolution, standard, brightness, technology, Lamp life etc. should be mentioned in the offer and manuals with all technical data of projectors should be supplied.

- 4) The life of the light source should be minimum 20000 hrs or more.
- 5) The brightness required should be not less than 5000 ANSI lumens (for individual projectors) with a contrast ratio of minimum 1500:1 with 3840 X 2400 pixels resolution (for individual projectors) or higher from reputed manufacturers. In case of bidder submitting a projector model using E shift technology , wobulation, interpolation or equivalent, the resolution calculation would be based on the native resolution of the projector and not on the maximum value. The final system brightness should be a uniform white luminance across the dome.
- 6) The system should be capable of providing at least 11 mega pixels resolution on the screen with 10% tolerance (net) on the dome after edge blending and overlapping with ability to display and interactively position flat screen video and fulldome images on the dome.
- 7) The required hardware and software to interface these projectors to the console both manually and using computers input devices are to be provided.
- 8) The system must have software and hardware to adjust and calibrate the geometric alignment, brightness uniformity and edge blending of the digital projection systems automatically and must be integrated into the show manager software.
- 9) Video synchronization: all video channels delivering the projected full-dome image must present frame synchronized content (rather than simply gen-locking video signals from asynchronous content).
- 10) The required hardware and software to interface these projectors to the console using computers are to be provided. The details of the computer system including processor and memory both RAM and auxiliary memories need to be mentioned. The PCs should be of Industrial grade and the make and model need to be clearly informed in the offer. Two additional hard drives for each projector to be supplied as backup. The necessary hardware should include 2 client computer for the projectors with a spare computer, GUI server, one storage computer with 22TB and a remote service PC for remote servicing with rack.
- 11) The projectors also need to be with latest technology incorporated for projecting full dome digital video shows for immersive experience.

OPTION III

- 1) One digital video projector, need to be of reputed make and the same is to be centre mounted with good lens system for getting the projection on the entire dome with minimum distortion. Projection technology should be Laser Phosphor / LED.
- 2) The brand name, model, resolution, standard, brightness, technology, Lamp life etc. should be mentioned in the offer and manuals with all technical data of projectors should be supplied.
- 3) The life of the light source should be minimum 20000 hrs or more.
- 4) The brightness required should be not less than 10000 ANSI lumens with a contrast ratio of minimum 1200:1 with 3840 X 2160 resolution or higher from reputed manufacturers. The final system brightness should be a uniform white luminance across the dome.
- 5) The system should be capable of providing at least 8 mega pixels resolution on the screen with 5% tolerance (net) on the dome. The ability to display and interactively position flat screen video and full dome images on the dome.
- 6) The projector must be fitted with fisheye lens specifically designed for planetarium use and specifically designed for the projector.
- 7) The required hardware and software to interface the projector to the console both manually and using computer system is to be provided.
- 8) The system must have software and hardware to adjust and calibrate the geometric alignment, brightness uniformity and edge blending of the digital projection systems automatically and must be integrated into the show manager software.
- 9) The details of the computer system including processor and memory both RAM and auxiliary memories need to be mentioned. The PC should be of Industrial grade and the make and model need to be clearly informed in the offer. Two additional hard drives to be supplied as backup. The necessary hardware should including GUI server, storage with 22TB and a remote service PC for remote servicing with rack.
- 10) The projector also need to be with latest technology incorporated for projecting full dome digital video shows for immersive experience.

C) Sound System

- 1 High Quality digital audio system with rack with playback media with PA system features having Necessary Mixers, Graphic equalizers, Power Amplifiers, 5.1 surround or better with not less than 250 watts per channel and sub woofer amplifier of around 800W . The individual speakers should be around 200 watts per channel and sub woofer should be around 600 watts. At least two good quality cordless microphones of reputed make need to be supplied.
- 2 Spare speakers – 2 Nos., Spare Power amplifier – 1no need to be provided.
- 3 The audio feeds are to be synchronized by reliable software with the show programme that runs in the computer. The audio system should accept timecodes such as SMPTE or MIDI which Controls sound position, motion, and size of sounds in 3D space.

D) Cove lighting

LED based cove light with multi colour LEDs with integrated DMX controllable and capable of different dome illuminations in vivid colours and hues. (360 degrees). There should be provision for synchronization of the Brightness and colour with respect to music.

E) Interactive Planetarium Software

The interactive Planetarium Software should consist of following standard & special features (More features are preferable):

- 1.The planetarium software must support general scripting language.
2. The planetarium software must allow KML Support Keyhole Markup Language files to be downloaded from the Internet and used to demonstrate a wide range of scientific concepts.
3. Earth & Moon System Features: High Resolution Earth & Moon Map, moons of Planets as per selected options.
4. Shadow to represent eclipses, Earth orbiting Satellites for Navigation and mapping, etc.
5. Constellations & Grids : 88 constellations, Stick figures, possibility to add arbitrary art overlays, IAU boundaries for J2000, Co-ordinate spheres for celestial, ecliptic and galactic systems, Meridian, Equator, Cardinal Points.

6. Solar System: Sun, Planets including their Moons, Minor Orbital Objects including Asteroids, Outer Solar System Objects, comets, OortCloud, Kuiper belt etc.
7. Space Missions: Cassini, Voyager & Voyager2, latest Mars missions, Pioneer, International Space Stations, important Indian Spacecraft and space missions are also to be added.
8. Milky way Galaxy: Hipparchus Star Catalog, Extra solar Planets, Open Star Clusters, Globular Star Clusters, Pulsars, Quasars, Planetary Nebulae, H II Regions, Supernova Remnants etc.
9. Extragalactic Space: Tully Galaxies (NGC, JC, 30,000 objects), 110 Messier Objects, Abell Galaxy Cluster, Deep Field Survey Objects, Sloan Digital Sky survey (SDSS).
10. Provision for viewing the Earth, Solar system & Milkyway galaxy from far away points.
11. More such features like simulations of the milkyway, the cosmic web... etc., as seen from different locations in space.
12. The supplier has to furnish the list of software systems that will be supplied.
13. Digital planetarium system software should be owned, developed and fully maintained by the digital planetarium system supplier
14. The system must allow the user to view the sky at any date/time from the surface of any solar system body, with correct diurnal motion where data is available.
15. The system must allow user to create, edit, resize, and style user-programmable buttons to automate commonly used sequences & commands.
- 16 . More such features, if any.

The supplier has to furnish the list of software systems that can be supplied.

F) Provision for multiple usage of show

The show manager should be capable of using Planetarium shows, other full dome digital shows from different developers around the world. The system should be compatible (video & audio) for the full dome shows either converted from large format films into digital or the digitally created shows. The digital system should be capable of projecting content as an upgradable option at a later stage. All details in this regard have to be provided.

G) All System and Navigation features:

Supported navigation devices: Mouse, Wireless Xbox, Keyboard, Ipad and Voice Control with the following or more features.

1. Scale Graph
2. Flight Assist for smooth acceleration & inertia

3. HALO Surface Feature
4. Volumetric Software
5. Show Modules
6. Resource material on basic Astronomy.
7. Point Cloud Renderer
8. Mesh Renderer
9. Implemented Object Positions
10. Drag and drop facility for installation of new Images, audios, models and videos etc
11. The system must allow the user to fly a camera to within any specified distance of any model in the system, to land the camera at any location on any solar system body or exoplanet. Once landed the system must allow the user to fly the camera to other locations on that body. All motions must be smooth.

H) Show Elements

The following minimum elements need to be provided for creating in house shows. Also warping software need to be supplied for creating full dome shows.

- i. Still images (regular images, panoramas, all-skies)
- ii. Full dome videos / planetarium shows
- iii. Full dome Clips, Solar system simulation, shooting stars simulation, 3D animated models of comets, Interior structure of planets, deep sky objects simulation, physical simulation of space phenomenon, eclipses etc.
- iv. Full dome simulation software must include labels to display labels for any objects represented
- v. Audio clips
- vi. Real movie strips
- vii. Text Labels
- viii. Self-defined lines, grids, scales
- ix. Stars and sky motions
- x. Sun, Moon & Planets, terrain data over the whole planet of high resolution with LANDSAT satellite images of venus, earth, mars and moon, saturn's rings made of endless particles of ice and dust,
- xi. Library of images, clippings, visuals, animation on space and astronomy related objects and events, database of artificial satellites, all known satellites of planets, Asteroid database, Comet data base, Star database, Exoplanet and Messier object database, crater/relief shading for rocky bodies, proper simulation of atmospheric refraction, reddening, extinction & scintillation
- xii. Software compatible to supplied system to create shows should be free licensed software provided with the system. (Preferably in MPEG, AVI, MOV and other standard formats).
- xiii. The full dome simulation software must include 3D inserts to incorporate 3D objects into the simulation with the following format: DAE (Collada), 3DS (3D

Studio), X (Direct 3D), OBJ (Wavefront), LWO (Light Wave Objects), CMOD (Celestia Models), OSG (OpenSceneGraph ASCII), IVE (OpenSceneGraph Binary), DXF (AutoCAD), FLT (Open Flight).

- xiv. The text editor to create show elements should be capable of handling English and Tamil.
- xv. Software compatible to the supplied system to create shows should be licensed

I) Show Manager

1. Should be capable of integrating user created artwork, videos, photos, sounds etc. with the aid of a timeline, any number of levels, tracks, layers, chapters and animation parameters, still images, the system should be capable of rendering images on the full dome. All elements should be loaded from the centralised data server into the resources window and previewed without any heavy rendering process, stitching, slicing etc. All required softwares with perpetual licence in the name of TNSTC are to be supplied. Provision for 4K shows or higher capacity animations for import & export control, automatic boot sequence for entire system, handling of external commands and coveilight controls etc.,
2. Show Manager must include a live real-time view of the dome on the computer monitor.
3. The show manager software should ideally be able to control audio, lights etc. inside the theater to create special effects for custom shows and live shows.
4. The pre-rendered video and real-time graphics inputs must be playable simultaneously and not mutually exclusive.
5. They must be played through the same astronomy software.
6. The System must be capable of using the drag and drop facility to include images, 3D models, videos or audio files into the Show Manager, without need to write any programming scripts. Dome View should immediately display these actions.
7. The show Manager must provide the ability to obtain content from an Internet library that is available to other sites.
8. The show manager must be translatable to local languages (especially Tamil) without the need for recreating it. The translation includes all system errors, warnings, messages, etc. Changing languages should be possible within the user interface.

J) Show Player

The tool for reproduction and control of shows, image distribution to the various channels, distortion correction, brightness and gamma adaptation as well as diaphragm calculations should be effective in real time, without prior slicing of raw images/customised ones in the software. Interference with a

running show through the familiar control commands (Play, Pause, stop etc) should be available in the User Interface. Jump to predefined bookmarks chapters or layers should be made available in the Player or Show Editor. By means of a time pointer, moving to any point of time within a show and enable projection from that point forward fully synchronised with all video and audio. The user interface must support a dark mode during live astronomy presentations Player must support general commands, such as controlling the dome illumination cove lights and configuring the projector. All the Player functions should be loaded onto a PDA/iPAD, and supplied so that it can then be used to wireless remote control pre compiled shows as an alternative to the computer control. And MPEG encoder must be supplied with the system to enable the user to recode raw images or customised ones in the software to be converted into full dome videos compatible to the system. Capable of projecting shows of 4K or higher capacity.

K) Flexibility to accept different shows made in different software

- i) The system should be capable of playing all types of shows - full dome video shows including large format film digitally converted shows.
- ii) The system software must support generic real-time volume rendering and include astronomical and non-astronomical volume sample data.

L) Library of Images/Full dome Clips:

A library of Full dome Clips and images mainly related to major astronomical events and objects along with their resolution, future upgradation option should be provided. Details of the Library have to be provided with offer for evaluation.

M) Library for Audio Clippings

A list of audio clippings, preferably 5.1 along with duration and format need to be furnished. The above clippings are required for adding background music when in-house shows are produced.

N) Monitoring

Adequate wide angle camera based auto monitoring / correction in automode should be installed.

O) Power Supply System

- i) Power input to be 220-240VAC, 50Hz fitted with Indian plug
- ii) Online UPS of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz).
- iii) In-built rechargeable battery backup and recharges automatically when connected to AC mains.
- iv) All the equipment supplied be made to be operative with the above power supply system.

- v) The Vendor has also to supply the system preferably from Indian supplier, online UPS 10KVA with modular sealed batteries. The UPS should be capable of providing a backup of not less than 40 minutes in 80% load.
- vi) Back to back warranty to be taken by the supplier from the principal to supply spares for a minimum period 10 years.

Tamilnadu Science and Technology Centre will provide necessary power supply breakers upto the UPS power supply point. It is responsibility of the Tenderer/ Supplier to provide and fix necessary cabling with proper conduit to all the systems and other equipments inside the theatre for proper functioning.

P) Installation and Commissioning

The computer & software are to be operated in Microsoft Windows platform. The supplier has to supply install and train at least four technical staff members of Tamilnadu Science and Technology Centre (TNSTC) in operation of shows in Planetarium as well as maintenance. They should also be trained in show development. The system should be commissioned and handed over to the TNSTC in good working condition. TNSTC shall verify and certify the systems for compliance to specifications. TNSTC shall also monitor and supervise the installation and commissioning.

Q) Shows

1. At least two numbers of 4K 2D shows are to be supplied to TNSTC with perpetual license. TNSTC will select the shows from the given list and corresponding preview video furnished by the Vendor. Full dome shows with bilingual - English and Tamil to be supplied. Necessary scripts and original sound tracks must be supplied. Each show should be of around 25-30 minutes duration. The script need to be recorded in Indian accent. Audio content of all shows must be in 5.1 digital surround encoded format.
2. All Free shows available from international producers like NASA/ESO/ESA etc. in English and Tamil
3. The vendor should list out the maximum number of free shows both 4K and 2K shows that can be supplied to the purchaser.

R) Spares

The consignment should have a set of spares viz. fuses and consumables and non consumables including spare control PCBS (populated), transformers, KVM switch – 2 nos, 2 sets of fiber Optic Converter / any similar converters if applicable, 2 sets of Fiber Optic cable / any other cable used of required length if applicable etc., so that the Planetarium can be maintained uninterrupted without any import of spares for three

years during the warranty period. A list of spares necessary with cost to be mentioned in the offer.

The prices of one spare computer and one spare projector without lens Spare speakers – 2nos with Amplifier – 1No. are also need to be quoted. The vendor has to replenish all the spares during warranty period if the same is used.

S) Tools and Equipment.

All set of manuals, all major and minor tools required for performing all types of maintenance need to be supplied along with the system. A list of these tools needs to be mentioned in the offer.

T) Warranty

The system should be offered with a comprehensive on site warranty for a minimum period of three years. During which the vendor is responsible for the supply of all components, spares, consumables, workmanship etc. necessary for running of the system trouble free. If the breakdown exceeds 3 days in any case, the guarantee period will be extended accordingly. If the breakdown exceeds five days, except in cases of reasons beyond control, a penalty of @ Rs 10,000/- per day shall be imposed.

U) AMC

The vendor has to quote the comprehensive AMC charges for a minimum period of 3 years after the expiry of warranty period. The list of essential spares required for the maintenance along with cost has to be mentioned in the offer.

V) SMPTE/Control

The vendor has to provide the SMPTE codes (Or other timing codes for interfacing) for different systems namely, main projection system, control console, full dome projection system, with all required permissions, so that the addition of new systems, if any due to Technology developments or creative systems from other sources can be added in future.

W) DELIVERY SCHEDULE

To deliver the equipments within four months of the receipt of purchase order and commence and complete and handover the system within six months from the date of receipt of Purchase order.

Penalty of Rs.20000 / day shall be imposed for late start and late completion.

Other tender conditions

The tenderer should have a strong support and back up team in India for attending to breakdowns or maintenance at short notice. Documentary evidence of technical expertise along with particulars of such agency should be submitted along with the technical bid.

The following should also be included in the tender conditions:

- i) Companies to indicate separately and clearly in their technical bids whether their products conforms / does not conform to each parameter in the specification and also to the extent it deviates from the specifications. Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/Para number of original catalogue/data sheet. Any technical specification claimed to be present by the company, if not substantiated with authenticated catalogue/manual, will not be considered. Hence authenticated copies of such catalogue / manual must be included along with the bid.
- ii) Supplier must provide the list of equipment available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual. Supplier must provide the list of important spare parts and accessories with their part number and costing.
- iii) Suppliers should have been in the market for at least 3 years and should have a satisfied user base for this equipment.
- iv) Suppliers should have made a large number of installations in the country in reputed institutions with a proven track record of excellent after sales support for this system.
- v) List of users must be enclosed.

SECTION VI-A

QUALIFICATION CRITERIA

SECTION VI-A : QUALIFICATION CRITERIA

(Referred to in Clause 11.2 of ITB)

For determining the lowest-evaluated bid, the Purchaser shall carry out the post qualification of the Bidder in accordance with ITB Clause 11.2, using only the requirements specified. Requirements not included in the text below shall not be used in the evaluation of the Bidder's qualifications

The Bidder shall furnish documentary evidence to demonstrate that it meets the following experience requirement(s):

1. Manufacturer Bidders

- (i) The bidder must have manufactured and supplied satisfactorily the similar model **quoted** in each schedule of the Schedule of Requirements either directly or through any other authorized dealer under "Section – V, Schedule of Requirements" during the last five years **and should have been supplied to Indian Institution** and should be in use satisfactorily with no adverse report for at least one year preceding the date of bid opening.
- (ii) The Bidder should furnish a brief write-up, backed with adequate data, explaining his available capacity and experience (both technical and commercial) for the manufacture and supply of the required equipment within the specified time of completion after meeting all their current commitments.
- (iii) The bidder should clearly confirm that all the facilities exist in his factory for inspection and testing and these will be made available to the purchaser or his representative for inspection.

2. Non- Manufacturer Bidders

In the case of a Bidder offering to supply Goods under the Contract that the Bidder does not manufacture or otherwise produce, **the Bidder should be duly authorized by the manufacturer of the Goods who meets the criteria under (1) above** (all supporting documents/information as asked above for manufacturer shall be submitted with the bid) and

- a) The manufacturer furnishes a legally enforceable authorization in the prescribed Form [Section XI] assuring full guarantee and warranty obligations as per GCC and SCC for the goods offered; and
- b) The bidder, as authorized by the manufacturer, must have supplied and provided after sales service to the quantities of **similar system** in the Schedule of Requirements in the last five (5) years **to Indian Institution**,

which must be in satisfactory operation at least for one year on the date of bid opening.

3. Common to Both Manufacturer and Bidder

- (i) The information on past supplies and satisfactory performance should be given in the Proforma given under Section-X.
- (ii) Documentary evidence (end users certificate) in support of the satisfactory operation of the goods as specified above shall invariably furnished.
- (iii) Data to support that the manufacturer has the financial and production capacity to perform the contract and complete the supplies within the stipulated delivery period shall be furnished for the non-manufacturer bidder data to support that he has the financial capacity to perform the contract and complete the supplies within the stipulated delivery period shall be furnished. Reports on financial standing shall be in the form of profit and loss statements, balance sheets and auditors report for the past three years, bankers certificate, etc.,
- (iv) Further, the manufacturer should be in continuous business of manufacturing / supplying and after sale services of products similar to that specified in the 'Schedule of requirement' during the last 5 years prior to bid opening. In case of non-manufacturer bidders, this condition should be satisfied by the manufacturer of the product.

1 The legal status, place of registration and principal place of business of the company or firm or partnership, etc.;

Notwithstanding anything stated above, the purchaser reserves the right to assess the bidder's capabilities and capacity to execute the contract satisfactorily before deciding on award

Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or record of poor performance such as, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.

Note:

- 1) The above post qualification requirements are to be met by the bidder (in case of manufacturer bidders) and the bidder and the manufacturer respectively (in case of non manufacturer bidders) and qualification of group/sister/parent companies will not be considered for meeting the above requirement.
- 2) For the purpose of furnishing documentary evidence to meet the post qualification criteria, the bidder should furnish the following:

Bidder

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- a. The supply made to public sector/Government units in India/private sector, the bidder should submit an affidavit confirming that the performance statement given is correct along with copy of purchase order, copy of invoices, proof of payment received from Purchasers, documentary evidence (end user certificate) in support of satisfactory completion of orders and function as stated above.”
3. The foreign manufacturer is permitted to submit an affidavit in their letter head duly signed by the authorized signatory of the manufacturer confirming that the performance statement given is correct.
4. In order to qualify for award of this contract, each tenderer in its name should have in the last five years i.e., 2015-16 to 2020-21 :
 - a). achieved in at least two financial years a minimum annual financial turnover of Rs.300.00 lakhs (Rupees Three Hundred Lakhs only).
 - b) Satisfactorily completed, at least one such work of value not less than Rs.300.00 Lakhs as principal contractor
5. Each tenderer should further demonstrate:
 - a) Liquid assets and or availability of credit facilities of not less than Rs. 200.00 Lakhs Credit lines/ letters of credit/ certificates from banks for meeting the fund requirement etc.) as per the following

BANKER'S CERTIFICATE

This is to certify that M/s. is a reputed company with a good financial standing. If the contract for “Supply, Installation, Testing & Commissioning of Digital Planetarium projection system for Anna Science Centre- Planetarium, Tiruchirapalli – 620 007, India” is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs. 200.00 lakhs to meet the working capital requirements for executing the above contract

Senior Bank Manger,
Name of the Bank, Address

6. Additional Qualification Requirements

The prospective bidders can only be considered for evaluation if he/she has the minimum qualification criteria as given below:

1. The Bidder/manufacturer must be an original manufacturer of the Digital Planetarium system software and the planetarium shows or authorized agent of the manufacturer and the content show generator. In case the bidder is an authorized agent of the manufacturer and the show producers, then the authority letters should be furnished with all the details.
2. The Bidder/manufacturer must have previous experience of having supplied and installed Digital Planetarium equipment for fixed dome and full dome shows worldwide especially including India. The bidder must have at least two (02) installations of complete Digital Planetarium Systems of the similar system offered in this bid, having installation (of multi – channel system) in the last five (5) years to Indian Institution, which must be in satisfactory operation at least for one year on the date of bid opening.
3. Experience as a prime contractor in the field of all kinds of Digital planetarium projects. Bidder/manufacturer must provide a complete list of Digital Planetarium installations done by them as prime contractor.
4. The Bidder/manufacturer must have trained staff in service and maintenance of digital planetarium projectors. The service and support infrastructure for digital planetarium system available with Indian counterpart to be provided. Bidder/manufacturer must attach copy of certificates showing factory trained staff.
5. The Bidder/manufacturer must furnish information regarding experience particularly on the following points:-
 - ❖ Name of the Manufacturer of digital planetarium system.
 - ❖ Standing of the firm and manufacture of equipment quoted.
 - ❖ Description of equipment similar to the quoted, supplied, installed & commissioned during the last 5(five) years with the name(s) of the party(s) to whom supplies were made with performance certificate from them.
 - ❖ If the manufacturer or their authorized agent is having collaboration with another production house(s) or firm(s) details regarding the same.

- ❖ A list of Purchase orders executed during the last 5 (five) years along with user's certificate and orders in hand.
- ❖ Equipment manufacturing capability and upto date testing facilities. Bids may not be considered if the past manufacturing experience in the field of digital planetarium is found to be unsatisfactory or is of less than 5 (five) years.
- ❖ Balance sheet and profit and loss account of the bidder duly certified by the Chartered Accountant for the immediately 3(three) preceding years should be enclosed to assess the financial soundness.
- ❖ No bankruptcy letter issued by appropriate Government authority of the respective country.
- ❖ Certificate of the existence issued by Department of the commerce/ Government accredited agencies of the respective country.
- ❖ Letter of Good Standing (tax clearance) issued by Tax Commission of the respective country.
- ❖ Certificate of incorporation/ Business License issued by Government authority of the respective state.
- ❖ Satisfactorily completed at least a similar work of value not less than Rs.30 Million (Rupees thirty million only).
- ❖ Liquid assets or availability of credit facilities for not less than Rs. 20.0 Million.
- ❖ List of institutions in India, along with their contact information where installations were done by the tenderer.

Note:

- 1. Notwithstanding anything stated above, the purchaser reserves the right to assess bidder's capability and capacity to perform the contract should circumstances warrant such an assessment in the overall interest of the purchaser.**
- 2. Uploading unnecessary documents may lead to disqualification of bidders.**
- 3. All the documents shall be notarized.**

SECTION VII

BID FORM AND PRICE SCHEDULE

**Tamilnadu Science and Technology Centre
B. M. Birla Planetarium, Periyar Science and Technology Centre,
Gandhimandapam Road, Chennai-25**

TENDER NO. _____

**BID FORM AND PRICE SCHEDULE
(OFFER FORM) (COMMERCIAL BID)**

**TENDER FOR SUPPLY, INSTALLATION, TESTING, AND COMMISSIONING OF
DIGITAL PLANETARIUM SYSTEM COMPLETE.**

We hereby offer our rates for the above tender as per following details:-

01. Name of the tenderer :

02. Mailing address of the tenderer including
PIN/ZIP Code :

03. Communication details like

Telephone number (s) :

Fax number (s) :

E-mail address :

Website :

04. Name and address of the Banker and their
Address with ABA Routine Number and
Swift Code :

Bidder

Executive Director

**5. Supply, Installation, Testing and Commissioning of the following Planetarium Equipment at site (Anna Science Centre – Planetarium – Tiruchirapalli – 627 007)
(The supplier has to quote split up prices for individual system as given below).**

SI.No	Description	Price in USD / EURO / INR
A.	Cost of the following Planetarium equipment complete on CIF Chennai, India basis with Customs clearance at Chennai Sea/Air port only. It will be the responsibility of the supplier to receive the items at Chennai Sea/Airport on behalf of TNSTC after customs clearance (TNSTC is having customs duty exemption certificate and the consignment is customs duty free) for safe transporting and unloading the same at the installation site at Tiruchirapalli. Necessary insurance if required, to be taken by the supplier during the transportation from sea/Air to Anna Science Centre – Planetarium - Tiruchirapalli, Campus site. Digital Planetarium Projection System complete with all standard accessories and programmes, (as described In Section VI : Technical Specifications) Quote separately for the spare projector, computers and the necessary software with detailed specifications for the following three options Option I The digital video projectors – 2 Nos not less than 5000 ANSI lumens (for individual projectors) with a contrast ratio of minimum 20,000:1 with 4096 x 2160 pixels resolution (for individual projectors) or higher from reputed manufacturers and they are to be cove mounted. Projection technology should be Laser Phosphor / LED.	

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	Option II The digital video projectors – 2 Nos not less than 5000 ANSI lumens (for individual projectors) with a contrast ratio of minimum 1500:1 with 3840 X 2400 pixels resolution (for individual projectors) or higher from reputed manufacturers and they are to be cove mounted. Projection technology should be Laser Phosphor / LED. Option III One digital video projector, with fisheye lens should be not less than 10000 ANSI lumens with a contrast ratio of minimum 1200:1 with 3840 X 2160 resolution or higher from reputed manufacturers need to be of reputed make and the same is to center mounted with good lens system for getting the projection on the entire dome with minimum distortion. Projection technology should be Laser Phosphor / LED. (TNSTC is having customs duty exemption certificate and the consignment is customs duty free).	
B	Projection dome Screen Option - a) Proper cleaning the existing 8m perforated dome with special solvents without affecting the perforations and maintain acoustics property. The quality and specifications of the cleaning solution, its property are to be clearly mentioned. The method of cleaning is to be clearly narrated. Option - b) Repainting the existing inner projection dome using recommended paint without affecting the perforations and maintain acoustics property. The quality and	

	specifications of the paint, its property are to be clearly mentioned. The method of cleaning, ,number of times the process is to be repeated, no of coats of painting, the special equipment to be used for painting and quality assurance are to be clearly narrated.	
C	Cost of installation & commissioning of the entire equipment system and training of Personnel at site for item no. 5 A above separately.	
D	Any other Item, Cost of each spare, to be mentioned separately	
E	Costs of 4k Planetarium shows (list may be provided separately with show abstracts and preview links)	

06. Warranty Period (3 years)

:

(During the Warranty period, besides the on-site warranty including spare parts, the manufacturer shall carry out at least two compulsory service visits per year for the purpose of preventive maintenance.)

07. i. Annual Comprehensive Maintenance (including supply of all spare parts) Charges for 3 years after expiry of the Warranty Period during AMC period, the manufacturer shall carry out at least two compulsory service visits per year for the purpose of preventive maintenance.

:

ii. Cost of spare parts (unit price). Attach separate sheet

08. i. Cost of each custom built complete planetarium programme of 25-30 minutes duration.

:

ii. Cost of each available complete Planetarium programme of 25-30 minutes duration. (List of Planetarium Programmes available in the Library may be submitted separately)

:

09. Cost of minimum 5.1 surround audio system with speakers & sub woofers, digital surround mixture along with wired & wireless mics, tool kits etc.

Quote separately for spare speakers and amplifier etc

:

10. Cost of Cove Lights (LED based) per unit

:

Bidder

Executive Director

11. Machine Shelf-life time (i.e up to which period technical support as well as spare parts including consumables shall be available with the firm) :

12. Payment terms

(All payments shall be made only through bank against Irrevocable Letter of Credit with forward rate contract) :

13. Delivery Schedule :

14. Validity of the offer for acceptance (minimum 10 months from the due date of opening of the tender may be offered for acceptance). :

The above rates quoted by us for supply of the tendered items are strictly in accordance with our specifications mentioned in the “Technical & Commercial Bid Document”. Deviation, if any, will make the tender/offer liable to be considered invalid.

Date

Official Seal

**Signature of the
Tenderer/Constituted/Attorney**

Bidder

Executive Director

Sl. No	Details of Specification	Quantity	Rate/ Qty USD / EURO / INR	Price in USD / EURO / INR
	❖ Projection dome Screen 1 a) Proper cleaning the existing 8m perforated dome with special solvents without affecting the perforations and maintain acoustics property. The quality and specifications of the cleaning solution, its property are to be clearly mentioned. The method of cleaning is to be clearly narrated. 1 b) Repainting the existing inner projection dome using recommended paint without affecting the perforations and maintain acoustics property. The quality and specifications of the paint, its property are to be clearly mentioned. The method of cleaning, ,number of times the process is to be repeated, no of coats of painting, the special equipment to be used for painting and quality assurance are to be clearly narrated.			
2	Digital Full Dome Projection System with all equipment / accessories detailed individual prices should be clearly mentioned for the 3 options (provided in Section VI : Technical Specifications) <u>separately</u> Option I Option II Option III			
3	❖ Sound System - with details of all the equipment with specifications and individual prices			

4	❖ Cove lighting – the type and specifications of LED strips to be mentioned clearly			
5	❖ Interactive Planetarium Software			
6	❖ All System and Navigation features			
7	❖ Show Elements			
8	❖ Show Manager			
9	❖ Show Player			
10	❖ Library of Images/Full dome Clips			
11	❖ Library for Audio Clippings			
12	❖ Power Supply System to adapt to 230V, 50Hz AC at site with online UPS – 10KVA			
13	❖ Installation and Commissioning			
14	❖ Shows (attach extra sheet with details)			
15	❖ Miscellaneous			
16	❖ Spares (attach extra sheet) Projector without lens Computer and other spares			
17	❖ Tools and Equipment (attach extra sheet)			
18	❖ Annual Maintenance Contract (AMC) cost for 3 years (attach extra sheet)			
19	❖ Delivery Schedule (attach extra sheet)			
20	❖ Validity of the offer (min 10 months)			
21	❖ Other costs if any			

The above rates quoted by us for supply of the tendered items are strictly in accordance with our specifications mentioned in the “Technical and Commercial Bid Document”. Deviation if any will make the tender/offer liable to be considered invalid.

Date

Office Seal

Signature of the Tenderer /
Authorised Representative

Bidder

Executive Director

Date:.....20
Contract No.....

To:

Gentlemen,

Having examined the Bidding Documents including Addenda Nos....., the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver.....

(Description of Goods and Services) in conformity with the said Bidding Documents for the sum of..... (Total Bid amount in Words and Figures) or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this bid.

We undertake, if our bid is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

If our bid is accepted we will obtain the guarantee of a bank in a sum equivalent to 5% of the Contract Price for the due performance of the Contract, in the form prescribed by the **Purchaser**.

We agree to abide by this bid for a period of(Number) days from the date fixed for bid opening under Clause 20 of the Instruction to Bidders and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this..... day of 201...

Signature :
(in the Capacity of) :

Duly Authorized to sign bid for and on behalf of
.....

Bidder

Executive Director

SECTION VIII
CONTRACT FORM

SECTION VIII: CONTRACT FORM

THIS AGREEMENT made the day of, 20..... between (Name and Address of **Purchaser**) represented by the Executive Director, Tamilnadu Science and Technology Centre (hereinafter “the **Purchaser**”) of one part and(Name and Address of Supplier) (hereinafter “the Supplier”) represented by (Name of the Authorized Signatory and Designation), Aged years, residing at (Full Residential Address of the Signatory) of the other part:

WHEREAS the **Purchaser** is desirous that certain Goods and ancillary services should be provided by the Supplier, viz., (Brief Description of Goods and Services) and has accepted a bid by the Supplier for the supply of those goods and services for the sum of (Contract Price in Words and Figures) (hereinafter “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and constructed as part of this Agreement, viz.:
 - (a) the Bid Form and Price Schedule submitted by the Bidder;
 - (b) the Schedule of Requirements;
 - (c) the Technical Specifications;
 - (d) the General Conditions of Contract;
 - (e) the Special Conditions of Contract; and
 - (f) the **Purchaser**’s Notification of Award
3. In consideration of the payments to be made by the **Purchaser** to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the **Purchaser** to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The **Purchaser** hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

Bidder

Executive Director

BRIEF PARTICULARS OF THE GOODS AND SERVICES WHICH SHALL BE SUPPORTED / PROVIDED BY THE SUPPLIER ARE:

S.No.	Brief Description of goods	Quantity to be Supplied	Unit Price	Total Amount (3 x 4)	Sales Tax & other Taxes Payable
1	2	3	4	5	6

Total Value: 5 + 6

Delivery Schedule:

IN WITNESS whereof the parties hereto have caused this Agreement to be executed on the day and year first above written. Signed, Sealed and Delivered by the said.....(for the Purchaser)in the presence of. Signed, Sealed and Delivered by the said.....(for the Supplier) in the presence of.

NOTE: To be executed on Rs.200/- Non-judicial stamp paper.

Signed, Sealed and Delivered by the

said (For the **Purchaser**)

in the presence of

Signed, Sealed and Delivered by the

said(For the Supplier) (Signature, Name, Designation and

Address with Office seal)

in the presence of

1) (Signature, Name and Address of witness)

2) (Signature, Name and Address of witness)

Bidder

Executive Director

SECTION IX
PERFORMANCE SECURITY FORM

Bidder

Executive Director

SECTION IX: PERFORMANCE SECURITY FORM

To : _____ (Name of **Purchaser**)

WHEREAS (Name of the Supplier) herein called “the Supplier” has undertaken, in pursuance of Contract No..... dated, to supply (Description of Goods and Services) hereinafter called “the Contract”.

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Bank Guarantee by a recognised bank for the sum specified therein as security for compliance with the Supplier’s performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a Guarantee

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, upto a total of (Amount of the Guarantee in Words and Figures) and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limit of (Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the day of 20 .

Signature and Seal of Guarantors

.....

.....

.....

Date 20

Address

.....

.....

Bidder

Executive Director

SECTION X
PERFORMANCE STATEMENT

(Please see Clause 11.2(b)
(ii) of Instructions to Bidders)

SECTION X

Proforma for Performance Statement (for a period of last five years)

Bid No.

Name of the Firm

Order placed by (Full Address of Purchaser) (1)	Order No. and Date (2)	Description and Quantity of ordered equipment	Value of order	Date of Completion of delivery	Remarks indicating reasons for late delivery, if any	Has the equipment been satisfactorily functioning? (Attach a certificate from the Purchaser/Consignee)
				As per Actual Contract		

Signature and Seal of the Bidder

.....

Bidder

Executive Director

SECTION XI
MANUFACTURER'S AUTHORISATION FORM

SECTION XI

(Please see Clause 11.2(a) of Instructions to Bidders)

MANUFACTURER'S AUTHORISATION FORM

No..... dated

To

.....
.....
.....

Dear Sir,

IFB No.

We _____ who are established and reputable manufacturers of _____ having factories at _____ and _____ do hereby authorise M/s. _____ (Name and address of Representative) to submit a bid, and subsequently negotiate and sign the contract with you against the above IFB NO.

No company or firm or individual other than M/s. _____ are authorized to bid, negotiate and conclude the contract in regard to this business against this specific IFB.

We hereby extend our full guarantee and warranty as per Clause 14 of the General Conditions of Contract for the goods offered for supply against this invitation for bid by the above firm.

Yours faithfully,

(Name)
for and on behalf of M/s. _____
(Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturer.

Bidder

Executive Director

SECTION XII
PRODUCER AUTHORISATION FORM

SECTION XII

(Please see Clause 11.2(a) of Instructions to Bidders)

PRODUCER AUTHORISATION FORM

AUTHORISATION LETTER BE ISSUED BY THE SHOW PRODUCER ON THE
LETTER HEAD

Date:

To

XXXXXXXXXX

XXXXXXXXXX

XXXXXXXXXX

Sir/Madam,

In response to the Tender No:..... i/We hereby declare that our firm/company having office at Is an original planetarium show producer for following listed shows. (List may be annexed with this form)

We hereby authorize firm/company having office at as our authorized planetarium show distributor for this project. We also confirm that the below listed shows produced by us are provided to above authorized distributor on perpetual license:

(List may be annexed with this form)

Signature

Name

Date

Place

Manufacturer Stamp

Bidder

Executive Director

**DECLARATION TO BE GIVEN BY THE COMPANY IN REGARD TO RELATION TO
PROMOTERS OF BLACKLISTED/DEBARRED COMPANIES BY
ANY POWER UTILITIES**

I declare that I or any of the representatives of my organization/company/firm do not have any relatives with promoters of blacklisted/debarred companies by any utilities. It is certified that the information furnished above is true to the best of my knowledge and belief. It is hereby undertaken that in the event of the above information found to be false or incorrect at a later date, Tamilnadu Science and Technology Centre is entitled to terminate the contract/ agreement entered into besides recovering damages as may be found necessary, with due notice.

Signature of authorized representative

Executive Director
Tamilnadu Science and
Technology Centre
Gandhimandapam Road,
Chennai-600025

SECTION – XIII

AFFIDAVIT

SECTION - XIII**AFFIDAVIT****(In Rs.10 NJ Stamp Paper)**

- 1) I _____ S/o. _____ residing at No. _____ proprietor / partner / Managing Director of _____ (Proprietary concern / Partnership firm / Company) carrying on business at No. _____ do hereby solemnly affirm and sincerely state as follows:-
- 2) I state that our concern / company participated in the tender Ref. for the supply of _____ with Tamilnadu Science and Technology Centre, Chennai.
- 3) Our concern / company had supplied _____ nos. of similar equipment for the Planetaria detailed below and the same is considered by us to meet the post qualification criteria prescribed in the tender above.

Sl.no	Date of Invoice	Name of the Item and model	Name and address of Institution supplied	Date of Installation *	Date of end user performance certificate *

- 4) I satisfy that the equipment supplied to the above planetaria are working well and being maintained by us. The complaints received from the Institution are attended to on time as per the Annual Maintenance Contract entered between us.
- 5) The performance certificate, invoice copy and payment proof are attached for the above supply

Solemnly affirm at

Signed before me

Chennai on this _____ Day 20 _____ and signed in my presence

(Notary Public)

** The period between the date of installation and date of end user performance certificate (Not installation certificate) should be more than one year on the date of bid opening.*

Bidder

Executive Director