



**KERALA STATE
SCIENCE AND TECHNOLOGY MUSEUM
Vikasbhavan P.O. Thiruvananthapuram – 695 033**

**Tender for the Electrical work
(Supply & Installation of Electrical Panel Panel Board and allied works)**

Name and address of the Contractor :

.....

.....

.....

Last date and time for submission of Tender: 30-07-2010 ,3 pm.

Date and time of Opening Tender : 30-07-2010 , 4 pm.

Contractor

Director

Contents

| | <u>Page No.</u> |
|--------------------------------|-----------------|
| Short Tender Notice | - 3 |
| Detailed Tender Notice | - 4 |
| General conditions of Contract | - 5 |
| Description of work | - 12 |

Contractor

Director

Tender Notice

Sealed tenders are invited by the Director, Kerala State Science and Technology Museum from Electrical contractors having valid License for the following works detailed below

| | | |
|-----------------------------------|---|---|
| Name of work | | Supply installation, testing and commissioning of One Panel board and allied works with the following specifications and direction of officer in charge . |
| PAC | - | Rs.55,000/- |
| EMD | - | Rs.1,375/- |
| Time of completion | - | 20 days |
| Last date of sale of tender | - | 30-07 -2010 - 2 pm |
| Last date of receipt of tender | - | 30/07/ 2010 - 3 pm |
| Date & time of Opening of tender- | | 30/07 /2010 - 4 pm |
| Cost of tender form, Original | - | Rs.400 + 4% VAT |
| Cost of duplicate tender form | - | Rs 200 + 4% VAT |

Further details and the tender documents can be had from the office of the undersigned from 15/07/2010 on remittance of tender form cost. The tender form can be downloaded from our website www.kstmuseum.com. In that case the tenderer has to enclose a D.D for an amount of Rs.400 + VAT @4% favouring Director, Kerala State Science and Technology Museum, Thiruvananthapuram -33 towards cost of tender form.

Contractor

Director

Notice inviting tenders

Detailed Tender Notice

- 1.1** Sealed tenders are invited by the Director, Kerala State Science and Technology Museum, Thiruvananthapuram for providing supply installation, testing and commissioning of Electrical panel board in the room near the proposed Motion simulator Project.
- 1.2** Tenders should be addressed to the Director, Kerala State Science and Technology Museum, Vikas Bhavan P.O., Thiruvananthapuram – 33 superscribed “TENDER FOR the installation of Panel Board in the proposed Motion Simulator Complex ” and sent so as to reach them not later than 3 **pm, 30/07//2010** Tenders will be opened in the presence of such tenderers or their authorised representatives as may be present.
- 1.3** The Director reserves the right to reject all or any of the tenders and to accept in whole or part of any of the tenders without assigning any reasons for doing so.
- 1.4** The successful tenderer will be required to sign an agreement on stamp paper in a form approved by the Director for the due fulfilment of the contract. But the written acceptance of the Director of a tender will constitute a binding agreement between the Director and the persons so tendering whether such formal contract is or is not subsequently entered into.
- 1.5** Earnest Money. Each tender must be accompanied by EMD of Rs1375/-in the form of DD drawn in favour of the Director, KSSTM. Tenders not accompanied by the EMD shall not be considered.

Contractor

Director

1.6 Validity of the tender

1.6.1 The tender shall remain valid for a period of 30 days from the date of opening of the tender.

1.6.2 The tenderer shall sign at the right hand bottom of each page of the tender documents.

1.6.3 The Director, Kerala State Science & Technology Museum, does not find himself, to accept the lowest or any tender or to assign any reason thereof and also reserves the right to accept the whole or part of the tender and the tenderer shall in such an event be bound to perform the contract at the same rates quoted in the tender for the different segments of the work.

2 **1.1 General Conditions of Contract**

2.1 The following general conditions of the contract shall be read in conjunction with the conditions of the contract. The following clauses shall be considered as extend and not limitation of the obligations of the contractor. The special conditions attached to the conditions also will form part of the conditions of the contract.

3 **General terms and conditions of tendering, contract and execution.**

3.1.1 For this tender and subsequent contract, unless in consistent with or otherwise indicated by the context, the following terms shall have the meaning defined here under:-

Contractor

Director

- 3.1.2** 'Director' shall mean, Director, Kerala State Science and Technology Museum, Thiruvananthapuram or His representative duly authorised to deal with matters regarding this work on his behalf.
- 3.1.3** 'Tender' shall mean tender notice, and all pertaining documents related to the tender.
- 3.1.4** 'Contractor' shall mean the individual, or firm or company whose tender with or without later amendments has been accepted and to whom a letter or intent/work order has been issued by the Director and accepted by him and agreement executed. This shall also include his / their executors, administrators and permitted assignees.
- 3.1.5** 'Contract' shall mean and include the tender notice/invitation to tender, the tender and all pertaining documents, the letter of intent, the purchase / work order, the correspondence exchanged after receipt of tenders and before issue of the letter of intent, the drawing, technical specification and standards relating to the contract work and the formal agreement executed by the successful tenderer/vendor with the Director, Kerala State Science and Technology Museum.
- 3.1.4** 'Work/Works' means and included all the works specified or set forth and required in any, by the specifications drawings and other documents which form part of this contract or to be implied therefore or incidental there or to be here after specified or required in such further explanatory instructions, drawings etc.as shall from time to time during the progress of the work, be given by the Museum.

Contractor

Director

3.2.1 Earnest Money Deposit and Security Deposit

Such tender must be accompanied by Earnest Money Specified in the tender notice in the form of a Demand Draft as described above.

3.2.2 Security Deposit

A sum of 5% value of contract, shall be deposited by the tenderer whose tender is accepted, as security deposit with Director within ten days of receipt of notification accepting his tender letter of intent/work order issued by the Director. Security deposit will be refunded after the period of guarantee, whenever applicable or after final settlement of due whichever is later.

3.2.3 No interest will be payable to contractor on EMD or Security deposits by the Museum

3.3 Tender rates and validity

3.3.1 Tenderer should quote both in figures as well as in words the rates and amount tendered by him for each item in such a way that interpolation is not possible. All corrections and alterations in the entries of tender papers will be signed in full by the tenderer with the date. In case of conflict, between words and figures, the lower amount will only be considered as correct.

3.3.2 Tenders submitted by tenderers shall remain valid for acceptance for a period of 90 days from the date of opening of the tender. The tenderer shall not be entitled,during the said period of 90 days without the consent in writing of the Director, to revoke or cancel his tender or to vary the tender given or any term thereof.

3.3.3 Price of Escalation

The rates quoted shall be deemed to be free from escalation of any kind. The

Contractor

Director

Museum shall not accept for any reason, whatsoever, price and tax escalations or any other item in respect of any material and or any category of labour during the whole period of operation of contract. The rates accepted by the contract agreement shall not be changed for any reason.

- 3.34.** The tenderer should submit a statement along with his tender giving details of the tenderers previous experience of similar works of comparable nature, also the type and size of the organisation owned by him.
- 3.3.5** The Director does not bind himself to accept the lowest tender and reserves to himself the right to reject any or all the tenders received without assigning any reason whatsoever Director also retains the right to negotiate with any one of all the tenderers after the opening of the tender and any of the terms or clauses of the tender. The work may be split up and awarded in part, if considered expedient.
- 3.3.6** The rate quoted by the tenderer shall include all cost of labour, materials, supervision thereof, hire for all tools and implements, incidental charges, and cover the insurance, taxes and all statutory obligations.
- 3.3.7** Supplying with requisite agency with necessary equipment for setting out and to facilitate checking of accuracy as and when necessary should be the contractors responsibility and no extra cost will be paid for that.
- 3.3.8** The work and materials used should confirm to relevant I.S. Code of practice.
- 3.3.9** The work site should always be kept clean of unwanted materials, rubbish etc. and all necessary safety precautions, should be taken by the contractor as per

Contractor

Director

safety rules.

3.3.10 Tenders which are incomplete in any respect, shall be rejected.

3.4 **Terms of payment completion time and penalty guarantee**

3.4.1 The payment shall be made as under:

100% value of the completed works will be paid immediately after satisfactory completion, testing and necessary certification from the Engineer concerned of our Museum.

3.4.2 The contractor shall guarantee that all equipments & installation shall be free from any defect and the equipment shall operate satisfactorily and that the performance and efficiency of the equipment shall not be less than the guaranteed values. The guarantee shall be valid for a minimum period of 1 year from the date of satisfactory reliability and performance tests. Any part found defective during the guarantee period shall be replaced by the contractor free of cost to the Museum. The prompt service of the contractor for such works shall be made available free of cost to the Director.

3.4.3 **Inspection and testing**

Directors authorised representative shall have all powers to inspect any portion of the equipment, examine the materials and workmanship at the contractors work of any other place.

3.4.4

Rejection of defective equipment and materials

If any portion of material thereof before it is taken over found defective or fails to fulfil the extend of the requirement, the contractor shall on receipt of

Contractor

Director

a written notice from the Director forthwith make good the defective materials within a stipulated period mentioned in the written notice or replace the equipments at no extra cost to Museum. Any damage caused during the transit, testing etc. shall be made good by the contractor without any extra charges to the Museum.

3.4.5 Bye-Laws

The Contractor shall comply with Bye-laws and regulations of local and statutory authorities having jurisdiction over the work and shall be responsible for payment of all necessary notices and keep the Director informed of the said compliance with Bye-Laws, payment made, notices issued and received.

3.4.6 Completion time.

The work covered by the contract shall be commenced and executed in accordance with the schedule within 20 days from the date of award of work.

3.4.7 Extension of Time

If the contractor shall desire extension of the time for completion of the work on the grounds of his having been unavoidably hindered in its execution or on any other grounds, he shall apply in writing to the Director who reserves the right to decide on the matter.

3.4.8 Cancellation of contract and alternative arrangement for effecting the supply/executing the work.

In case of the failure of the contractor to keep up to the executing and delivery schedules and if in spite of a written notice given to him by the Director he fails to improve his rate of performance of work within reasonable period there after

Contractor

Director

(one week) the Director can terminate the contract immediately without any legal notices and thereafter the Director shall have every right to get the work completed through other agency / agencies at the risk and cost of the contractor. Further any loss or extra cost that has to be borne by the Director to hire charges or price it had to pay to get the work completed, the Director could deduct such amount from the contractor and the contractor will have no claim of any gains of such alternative arrangements.

3.4.9 Arbitration

Arbitration shall not be a means of settlement or disputes or claims arising out of this contract relating to the work. In case of any dispute or difference between the parties of the contract, either during or after the completion of the work or after termination, abandonment or breach of contract, or as to the interpretation of the provisions of the contract or as to any matter of thing arising there under except as to any matter left to the direction of the Museum under the clauses of the contract, such dispute or difference shall be referred to the Civil Courts of Thiruvananthapuram and the jurisdiction of such matter will be confined to Thiruvananthapuram Courts only.

3.5. Extra items and additions

3.5.1 Power to make alterations:

The Director shall have the power to make in writing any alterations, omissions from additions or substitutions for original specifications, drawings, designs, patterns and instructions that may appear to him, necessary or advisable during the progress of the work and the contractor shall be bound to carry out the

Contractor

Director

work in accordance with any instructions which may be given to him by the Director or his representative. Such omissions, additions alterations or substitutions shall not invalidate the contract. Any altered, additional or substituted work, which the contractor may be directed to do in the manner specified above as part of the work shall be carried out by the contractor on the same conditions in all respect on which the main work was agreed to be done, and the rates according to clause 3.5.3. Addition to existing items and quantities will not constitute an extra item. The agreed rates for all item shall remain unchanged till the completion of the contract.

3.5.2 No alterations, omissions, amendments, additions, substitutions or deviations of the work under the contract as shown by the contract, drawings of the specifications shall be made by the contractor except as directed in writing by the Director.

3.5.3 Rates for additional items

- a) The rates for such additional, altered or substituted work if directly available in the contract for the work, the contractor shall be bound to carry out the work at the same rate as are available in the contract for the work.
- b) If the rates for the additional, altered or substituted work are not directly available in the contract for the work the rates for a similar class of work as specified in the contract for the work shall be worked out and agreed mutually.
- c) In the absence of any agreed rate or similar item in the contract, the rate for the extra item of work shall be mutually agreed based on the evaluation of cost and other charges, if ascertained from the market and other agencies.

3.5.4 The tenderer is invited to visit the site before hand and acquaint himself fully of the

Contractor

Director

details and other site conditions. No claim whatsoever should be entertained later on the plea or any difficulties involved in the execution of work which was not foreseen by the tenderer.

4. Particular Specifications:

4.1 (i) Scope of work:

Fabrication, Supply ,installation, testing and commissioning of panel board and allied works including getting the approval from Electrical Inspectorate etc . as per drawing and direction of officer in charge .

4.2 (ii) Items of supply and work by department

Unless otherwise specified, the following supply shall be made by the department.

Water and electricity for erection and commissioning purposes .

4.3. General

Work shall be carried out in accordance with the specifications in the schedule, local rules, and relevant I.S. Specifications. The entire installation shall be tested for all relevant parameters and a test certificate shall be submitted.

4.4 All materials are to be supplied by the contractor

4.5 All materials shall have to confirm to relevant I.S Specifications and are of approved make.

Contractor

Director

Schedule of quantities and description of work

| SL. No | QUANTITY | SPECIFICATIONS | Unit | Rate.Rs | Amount Rs. |
|--------|----------|---|------|---------|------------|
| 1 | 1 | <p>Fabrication, Supply, Installation, Testing & Commissioning of fully partitioned, dust & Vermin proof panel assembly as per IS8263 (with latest amendment) using 1.60mm CRCA sheet as approved design and requirement with front access facility, bus-bar Chambers, hinged doors for all switch gear compartment, earthing the door with 4 sq.mm braided copper conductor, providing necessary cut outs for mounting meters, indication lamps, Bus bar inter connection etc, detachable covers for Bus-bar Chamber and Cable alley, painting the assembly with 2 coats synthetic enamel paint over a coat of approved primer etc as required. CRCA sheet alone be used for the fabrication of panel. Angle, flats, slotted angle etc shall not be used for fabrication of panel assembly SMC sheet of not less than 3mm should be provided in the panel as barriers shrouding using required bolts & nuts including cutting to shape etc as required. Earth bus is to be provided. The specification of switch gears to be provided in panel as follows.</p> <p><u>Incomer</u></p> <p>100A, 400V, 50Hz, MCCB (L&T) make or equivalent with rotary handle - 1 no-</p> <p><u>Other feeders</u></p> <p>a) 63 A, 400V, 50Hz, MCCB (L & T) make or equivalent - 1 no</p> | No | | |

| | | | | |
|---|---|---|----|--|
| | | <p>b) 32 A, 400 V, 50 Hz, TPN SFU (L&T) make or equivalent - 3 nos</p> <p><u>Metering arrangements</u></p> <p>Voltmeter (0-500V) - 1 nos</p> <p>Voltmeter selector switch- 1 nos</p> <p>Ammeter (0-200 A) - 1 no</p> <p>Ammeter selector switch- 1 no</p> <p>Panel phase indicator (LED)- 3 nos (Red, Yellow, Blue)</p> <p>Panel indicator fuse - 3 nos</p> <p>Current Transformer - 3 nos etc.</p> <p>complete, including cable termination of 3 ½ x 50 mm Sq. (armoured Aluminium cable)</p> | | |
| 2 | 1 | <p>Supply, Installation, Testing & Commissioning, proper fixing of SFU fuse unit of the following rating in the existing panel board installed in the Museum extension block building by making suitable modifications if required 100 A, 400 V, 50 Hz TPN SFU</p> <p><u>Metering arrangements for the existing panel</u></p> <p>Voltmeter (0-500V) - 1 nos -</p> <p>Voltmeter selector switch - 1 nos -</p> | No | |

| | | | | | |
|---|---|--|------|--|--|
| | | Ammeter (0-200 A) - 1 no - Ammeter selector switch - 1 no - Panel phase indicator (LED)- 3 nos - (Red, Yellow, Blue) Panel indicator fuse - 3 nos - | | | |
| 3 | 1 | Submission of scheme to Electrical inspectorate and getting approval of the same | L.S. | | |
| 4 | 1 | Plate earthing conforming all relevant IS standards (IS 3043) using 600x600x6.3mm including excavation of soil sand filling, fixing of cover and other masonry works complete near the building of the Motion Simulator Theatre. | No | | |
| | | | | | |

Note:- 1. All works are to be carried out as per the direction of officer-in-charge of the Museum.

2. Make of all items are to be clearly mentioned in the offer

3 All works are to be carried out as per relevant I.S.

4. Preparation of schemes for the entire work and its submission to statutory bodies (Electrical Inspectorate, KSEB etc.) for approval and submission of completion report and other formalities like obtaining approval etc. are in the scope of the contractor.

Director

Contractor.