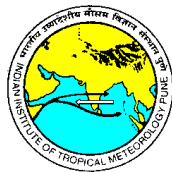


TENDER DOCUMENTS

FOR
(TECHNICAL SPECIFICATIONS – PART 1)

FOR

External Electrical Work- 22KV Power Cable Supply and Laying
From Ganeshkhind Sub-Station To I.I.T.M.



Indian Institute of Tropical Meteorology

Dr. Homi Bhabha Road, Pashan, Pune 411008.

E-mail : lip@tropmet.res.in
Web : <http://www.tropmet.res.in>

Fax : 91-020-25893825
Telephone : 91-020-25904200

INDIAN INSTITUTE OF TROPICAL METEOROLOGY, Dr.Homi Bhabha Road,Pashan Pune-411008

TENDER NOTICE

The Director, Indian Institute of Tropical Meteorology, Pune-411008 (India) invites Sealed tenders under **TWO BID SYSTEM**, i.e., separate sealed tenders (Part-I –Technical Bid, Part-II Commercial Bid) from reputed Indian contractors with valid license for carrying work in Maharashtra for supply, installation, commissioning and Demonstration of following item:

Sl. No	Tender Reference No	Description of Items	EMD IN(Rs)	Cost of Tender in(Rs.)
1	CE/HPC/EE/06/2010	External Electrical Work- 22KV Power cable supply and laying from Ganeshkhind Sub-Station to I.I.T.M.	JOB 3,70,000	5000

Prebid Meeting: 29/11/2010 at 1100 hrs

Due Date for Receipt of Tender : 15 /12 /2010 up to 1200hrs,

Date of Opening of Technical Bid : 15/12 /2010 at 1500 hrs .

For details, please visit our website <http://www.tropmet.res.in> . Tender documents can be either obtained on payment in the form of Demand Draft from Nationalized Bank Drawn in favour of Director IITM payable at Pune, from the General Administration section of the Institute or may be downloaded from our website.The Institute reserves the right to reject any or all tenders without assigning any reason whatsoever and his decision on all matters in this regard shall be final and binding.

[Advt. No. CW/07/2010]

Civil Engineer



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1. Sealed item rate quotations are invited from reputed electrical contractors with valid contractors' license who can carry out the work in state of MAHARASHTRA

Name of Owner	INDIAN INSTITUTE OF TROPICAL METEOROLOGY PUNE .411008(INDIA)
Name of Work :	EXTERNAL ELECTRICAL WORK- 22KV POWER CABLE SUPPLY AND LAYING FROM GANESHKHIND SUB- STATION TO IITM.
Cost of Tender documents :	Rs. 5000 /- (Non-Refundable) in the form of Demand Draft from Nationalized Bank drawn in favour of "Director Indian Institute Of Tropical Meteorology, Pune"
Earnest Money Deposits :	Rs. 3,70,000 (Three Lakhs Seventy Thousand Only) in the form of Demand Draft/Bank Guarantee from Nationalized Bank drawn in favour of "Director Indian Institute Of Tropical Meteorology, Pune".
Completion Period :	THREE months from the date of LOI.

2. The tender forms will be available on payment of costs of tender documents in the form of Demand Draft from Nationalised bank at the address given below

The Director
Indian Institute of Tropical Meteorology,
Dr. Homi Bhabha Road,
Pashan, Pune – 411008(India)

3. Pre-bid meeting on – **29/11/2010 (1100hrs)**
4. Duly completed tenders shall be submitted in sealed envelopes at the office on **15/12/2010 by 1200 hrs.**

The Director
Indian Institute of Tropical Meteorology
Dr. Homi Bhabha Road, Pashan, Pune - 411 008(INDIA)
Tel. No. 020 - 25904200

Contact Person: - A. K. Saxena, Civil Engineer
Tel. No. 020 – 25904335

Due Date and Time: **15/12/2010 ,1200 hrs. and opened at 1500hrs on same day.**

5. The Director reserves right to accept or reject any or all the quotations without assigning any reasons whatsoever and his decision on all matters in this regard shall be final and binding.
6. This tender notice shall form part of contract / order.



INSTRUCTIONS TO THE TENDERERS.

1. The tender is to be filled properly and all relevant information asked for shall be provided for in due format.
2. i) The Tenderers are requested to give detailed sealed tender in their own forms in two Bids i.e.
Part – I Technical Bid.
Part - II Commercial Bid.

Both the sealed bids should be sent in another sealed envelope addressed to the Director, Indian Institute of Tropical Meteorology, Dr. Homi Bhabha Road, NCL Post, Pashan, Pune – 411 008, INDIA so as to reach on or before **15/12/2010 upto 1200 hrs..**

ii) You have to submit two separate bids in two separate envelopes and you may keep both the bid envelopes in an envelope for sending to us.

One envelope will contain only the **TECHNICAL SPECIFICATIONS** of the indented equipment.

Another envelope will contain only the financial bid in which price, maintenance, AMC etc. and any other information, which has financial implications, will only be given.

The main envelope, which will contain both the bids, should be super scribed with our tender enquiry No. CE/HPC/EE/06/2010 due on **15/12/2010 upto 1200 hrs.**

iii) The technical bids will be opened on the specified due date in the presence of tenderers who wish to be present & the financial bids of only those bidders will be opened whose technical bid is found suitable by us.

iv) The Date and Time of opening for Part-II (Commercial Bid) will be intimated only to pre-qualified and

technically acceptable Tenderers for the item at a later date.

Last Date and Time for receipt of Tenders: **15/12/2010 upto 1200 hrs.**

Date and Time of opening of Tenders: **15/12/2010 at 1500 hrs.**

(Part - I Technical Bid only)

v) This tender is not transferable.

vii) Tenders received through Fax / E-mail / Telegraphic / Telex will not be considered.



- 3 Commercial bid with price schedule only, super scribing the envelop as commercial bid.
4. The schedule of rates shall be submitted in two sets.
- 5 The tenders must be clearly written or typed without any cancellations / corrections or overwriting.
 - a)Tenders, which are submitted without following the Two-Bid Offer System, will summarily be rejected.
 - b)Unsigned Tenders will also be rejected.
 - c) Part and incomplete tenders are liable to be rejected.
6. All section wise total amounts shall be written in words also.
7. The tenderers are requested to furnish company profile alongwith similar works handled, staff and infrastructure etc in technical bid.
- 8 The tenders will be received in the Institute till **15/12/2010 up to 1200 hrs.** and shall be opened on **15/12/2010 at 1500 hrs.** in presence of the tenderers or their authorized agents who wish to be present.
- 9 IITM will not be responsible:
 - a)For delayed / late quotations submitted / sent by Post / Courier etc.
 - b)For submission / delivery of quotations at wrong places other than the Office of
Director, IITM, Pune
- 10 The tender / quotation / offer submitted by the firm should be valid for a minimum period of **Ninety (90) days** from the date of opening the tender.
- 11 The Tenderer's conditions printed on the tender or otherwise sent along with the tender shall not be binding on IITM.
- 12 **Delivery Period:** As time is the essence of the contract, Delivery period (nine months or earlier) mentioned in the Work Order should be strictly adhered to.
- 13 Kindly attach a copy of your latest CPWD/MES/MSEB or any other Govt Organisation registration certificate.
 - a)The Tenderer is required to furnish the Permanent Account Number (PAN) Allotted by the Income Tax Department. If registered with the National Small Industries Corporation, the registration number, purpose of registration and the validity period of registration' etc. should also be provided in Technical Bid for Indian Agents.
 - b)A copy of latest Income Tax Clearance Certificate from Income Tax Department (INDIA) for Indian Agents
- 14 The prices quoted should be firm and irrevocable and not subject to any change whatsoever, even due to increase in cost of raw material.



- 15 EMD shall be in the form of Demand Draft form nationalized bank as mentioned specifically in Tender Notice and shall be enclosed in a separate envelope along with the tender.
- 16 a)The Earnest Money Deposit of **3,70,000.00(Three Lakhs Seventy Thousand Only)** must be paid / sent along with your technical bid in the form of a Demand Draft, Banker's cheque or Bank Guarantee (preferably from a Nationalized Bank only) drawn in favour of **The Director, Indian Institute of Tropical Meteorology, Pune payable at Pune**, otherwise your technical & financial bids will not be considered at all. The Earnest Money of successful bidder will be returned only after satisfactory completion of work & on acceptance of the same by Institute authorities. If the successful bidder fails to fulfill the contractual obligations before the due date, he will forfeit the EMD.
- b)The Earnest Money of the unsuccessful bidder whose technical bid has not been found suitable will be returned within 15 days after receipt of Technical Committee recommendations.
- c)Those who are registered with Central Purchase Organization (e.g. DGS&D), National Small Industries Corporation or the concerned Ministry / Department need not furnish EMD along with their bids.
- d)Though EMD has to be submitted by Demand Draft, Banker's Cheque or Bank Guarantee, we prefer to have Bank Guarantee for easy return to the bidders once a decision is taken by IITM. (Specimen of Bank Guarantee is enclosed at Annexure 'A').
- e)Tenders not accompanied with Demand Draft / Bank Guarantee towards "Earnest Money Deposit" will summarily be rejected.
- 17 Please indicate page nos. on your quotation ex. If the quotation is containing 25 Pages, please indicate as 1/25, 2/25, 3/25 -----25/25.
- 18 Preliminary drawings, prints shall be available for reference & discussions at our office.
19. Time is essence of contract, hence contractor has to mobilize proper manpower & material in a short mobilizations period to site. No extension will be given for completion period, without proper and genuine reasons.
20. All bidders should visit site prior to giving quotes to get acquainted with site conditions. No demand shall later be entertained due to site conditions.
21. Pre-bid meeting for technical queries will be held on **29 / 11 /2010, 1100Hrs** at I.I.T.M. Bidders are requested to be present in the meeting. All technical queries will be answered by the concerned authorities.
22. Bidders are requested to give deviations / comments / assumptions clearly in deviation pages based on the site observations.
23. Bidders are requested to highlight the makes of material considered while quoting in the list of approved makes.
24. The Director IITM reserves the right to accept or reject any or all bids without assigning any reasons whatsoever & his decision on all matters in this regards shall be final and binding.



- 25 Conditional Offers will not be considered.
- 26 All disputes are subject to exclusive jurisdiction of Competent Court and Forum in Pune, India only.
27. Duly completed tenders shall be submitted to addressee to following address

The Director
Indian Institute of Tropical Meteorology
Dr. Homi Bhabha Road, Pashan, Pune - 411 008
Tel. No. 020 - 25904200

Contact Person- A. K. Saxena, Civil Engineer
Tel. No. 020 – 25904335

Due Date and Time: 15 /12 /2010 at 1200Hrs.

28. Soft copy shall be submitted along with tender in the CD provided. Bidders shall not change format of BOQ, VAT & service tax calculation / supporting shall be kept separate.



ARTICLES OF AGREEMENT

Articles of Agreement made on the ----- day of

-----2010

BETWEEN:

The Director, Indian Institute of Tropical Meteorology,Pune having it's registered office situated at Dr. Homi Bhabha Road, Pashan, Pune- 411008. (herein after called the owner) Of THE FIRST PART,

AND

----- ,proprietor of M/s-----, having it's office situated at ----- (herein after called "The Contractor") of THE SECOND PART.

Whereas the FIRST PART is desirous of awarding the External Electrical Work- laying of 22KV cable from 132/22 KV substation from Ganeshkhind to HPC Bldg of Indian Institute Of Tropical Meteorology,Pune to M/s----- as per the bill of quantities showing and describing the work to be done in accordance with the work order. Accordingly work order is being issued for Rs.---- -----in favour of the contractor.

And, whereas the contractor has supplied the Indian Institute of Tropical Meteorology with a fully priced copy of the said bills of quantities (which copy herein after referred to as "The Contract Bills"). And whereas the said drawings (herein after referred to as "The Contract Drawings") and the contract bills have been signed by or on behalf of the parties hereto and whereas the contractor has deposited the sum of rupees ----- with the Indian Institute of Tropical Meteorology ,Pune for the due performance of this Agreement. Now it is hereby agreed as follows:

1. For the consideration herein after mentioned the contractor will upon and subject to the condition annexed, carry out and complete work shown upon the contract drawings and described by or referred to in the Contract Bills and the said conditions.
The Indian Institute of Tropical Meteorology ,Pune will pay the contractor the sum of Rs. ---- -----
(herein after referred to as "Contract sum") as shall become payable hereunder at the time and in the manner specified in the said conditions.



2. The said condition and Appendix any part of agreement shall be signed by both the parties hereto (Sections) shall be read and construed as forming part of this Agreement, and the parties hereto shall respectively abide by, submit themselves to these conditions and perform the agreements on their parts respectively in such conditions contained.
3. Penalty Clause: If the contractor /supplier fails to supply, install and commission the work as per specifications mentioned in the order within the due date ,the contractor / supplier is liable to pay liquidated damages of one percent value of the Purchase Order awarded, per every week delay subject to a maximum of 10% for every week beyond the due date and such money will be deducted from any money due or which may become due to the contractor / supplier.

As witness the hands of the said parties.

Signed by :

In the presence of :

Witness :

Name :

Address :

CONTRACTOR



SECTION - A

FORM OF TENDER

To,
 The Director
 Indian Institute of Tropical Meteorology
 Dr. Homi Bhabha Road,
 Pashan, Pune-411 008

Dear Sirs,

Having examined the drawings, specifications and schedule of quantities of work specified below and having visited and examined the site of works for acquiring requisite information, I/ We hereby offer to execute the works specified below in the specified time period at the rates quoted in the schedule of prices attached in accordance with the drawings, designs, specifications, conditions of contract and in all other respects with such conditions as applicable.

a)	Description of Work	:	EXTERNAL ELECTRICAL WORK- 22KV POWER CABLE SUPPLY AND LAYING FROM GANESHKHIND SUB-STATION TO IITM PUNE.
b)	Earnest Money Deposit	:	Rs 3,70,000 (Three Lakhs Seventy Thousand Only) in the form of Demand Draft/Bank Guarantee from Natinalized Bank drawn in favour of "Director Indian Institute Of Tropical Meteorology, Pune"
c)	Completion Period	:	(3)THREE Months.

1. Should this tender be accepted, I/We hereby agree to abide by and fulfill all the terms and conditions of contract as they may be applicable and in the default there of to forfeit and pay to owner sum of money mentioned in the said conditions.
 2. I/We agree that this offer shall remain open for acceptance for a minimum period of 90 days.
 3. I/We hereby deposit a sum of Rs. ----- as EMD which is not to bear any interest. Should I/we fail to execute the contract when called up to do so, this sum shall be forfeited by me/us.
 4. Our Bankers are
 5. Names of Owner/Partner of firm
- 1)
 - 2)
 - 3)



Name of Partners/Director of
Firm Authorized to Sign.

Name of Person having Power of
Attorney to sign the contract:

PLACE :

DATE :

Signature & Seal of
Contractor

SIGNATURE, NAME & ADDRESSES OF W ITNESSES:

1)

2)



SECTION - B

PROJECT INFORMATION:

OWNER	:	THE DIRECTOR, INDIAN INSTITUTE OF TROPICAL METEOROLOGY, PUNE
PROJECT	:	IITM, HPC UPGRADATION.
WORK	:	EXTERNAL ELECTRICAL WORK- 22KV POWER CABLE SUPPLY AND LAYING FROM GANESHKHIND SUB-STATION TO IITM PUNE
AVG. RAIN FALL	:	800 mm
TEMPERATURES	:	42 °C Max. 8 °C Min.
INCOMING SUPPLY	:	22000V 3 Phase, 3 Wire.
DISTRIBUTION	:	415V 3P h, 4Wire, 50HZ

B .1. DETAILED SCOPE OF WORK:

1. Supply, laying, testing and commissioning of 22 KV HT cable and jointing includes cable from 132/22 KV Ganeshkhind Sub-Station to point of Supply of IITM on Pashan Road,Pune.
2. Considering difficulties for laying cables and alternative routes, proper alignment of cable route to be finalize in consultation with MSEDCL and getting the permission from P.M.C for laying of cables on P.M.C roads and private property owners.
3. Arranging testing of 22 KV Cable from the approved supplier at the factory in presence of MSEDCL, IITM representatives
4. Supply & Installation of 22 KV Load Break Switch (LBS)/ Feeder pillar at the locations approved by MSEDCL
5. Supply & laying of Hume pipes (Spigot Type) for HT cable laying as per BOQ.
6. Supply & Installation of earthing system.

B.2: GENERAL:

Scope includes testing and commissioning of all items installed by contractor. Necessary support by manufacturer can / shall be provided. Scope also includes unloading of free issue items at site, & storing of these items.

Contractor's person can accompany client's representatives for shop inspection if necessary for above items. Contractor has to carry out all works as per respective IS standards & I.E.C. All required tools & tackles, testing kits, measuring instruments, safety equipment's shall be provided by contractor with skilled manpower required.

B.3: LIST OF FREE ISSUE ITEMS:

Procurement of all items shall be included in the contractor scope. Client reserves right to procure any other material if felt necessary by giving proper information to contractor.

B .4: POST COMPLETION HANDING OVER DOCUMENTS:

Contractor's scope of work also covers post completion handing over documents, which will cover.

- a) As Built Drawings.
- b) Installation & maintenance manuals of all equipment.
- c) Test & warranty certificates of all bought out item.



- d) Test certificates for all installations.
- e) Statutory documents required for record.

SECTION – C DEFINITION OF TERMS

- C.1** **‘Owner/Purchaser’** shall mean the Director IITM on whose behalf this enquiry is issued and his authorized representative.
- C.2** **‘Engineers’** shall mean Authorised person appointed by the Institute for the project.
- C.3** **‘Bidder’** shall mean party who quotes against this enquiry.
- C.4** **‘Contractor’** shall mean the successful ‘BIDDER’ whose bid has been accepted by The Director IITM, Pune and on whom Purchase/Work Order is placed.
- C.5** **‘PROJECT’** shall mean the project specified in Section - B.
- C.6** **‘SITE’** shall mean the actual place of work as detailed in specification / Section B .
- C.7** **‘SPECIFICATIONS’** shall mean collectively all the terms and stipulations contained in those portions of contract as general and special conditions, amendments, deletions, revisions as made in agreement or written agreements made pertaining to method of work.
- C.8** **‘Month’** shall mean Gregarian calendar month.
- C.9** **‘Plant/Equipment’** and **‘Works’** shall mean respectively the goods to be supplied and services to be provided by contractor.
- C.10** **‘Contract/Work Order’** shall mean the order specifying works and associated specifications to be executed by “Director IITM, Pune and Contractor”.
- C.11** **‘Contract Period’** shall mean the period during which “The Director IITM” and “Contractor” shall execute the entire contract as agreed.
- C.12** **‘Guarantee Period’** / "Defect Liability Period" shall mean period during which the plant / equipment and installations shall give same and trouble free performance as guaranteed by contractor.
- C.13** **‘Engineer's Instructions’** shall mean instruction oral or written, drawings, direction, explanations issued by Engineer / Authorities of the Institute on behalf of the Director IITM from time to time during period of contract. (All ‘oral’ instructions shall be authenticated by written instructions immediately.)
- C.14** **‘Performance Tests’** shall mean all tests to be carried out by contractor as per specifications prior to installation being taken over by the Director IITM under guarantee
- C.15** **‘Commissioning’** shall mean integrated activity of carrying out performance tests, initial and trial operations of system.
- C.16** **‘Drawings’** shall mean all drawings furnished by Engineer / Owner for basis of proposal or for carrying out works, from time to time; all drawing submitted by vendor provided such drawings are acceptable to Engineers of the Institute.
- C.17** **‘UR’** means quote unit rate.



SECTION – D- I

GENERAL CONDITIONS

D.1 WORK ORDER:

The work order conveys final agreement between the Director IITM and contractor on terms and conditions and is exclusive statement of terms of their agreement. In case of discrepancy between general conditions and specifications, drawings furnished by the Director IITM, Director's decision with consultant would be final

D.2 MODIFICATION AND VARIATION:

The order may be amended, modified or rescinded only in writing by both the parties and their duly authorized representatives pursuant to terms stated therein.

D.3 MATERIALS AND SERVICES:

D.3.1 LABOUR & TOOLS TACKLES:

The contractor shall provide at his cost, all necessary material, tools, tackles, skilled manpower for proper execution of works specified in the schedule of the quantities and as per drawings and specifications. Any discrepancy in schedule of quantities and drawings shall be brought to notice of engineer/ the Director IITM for decision, immediately.

D.3.2 ACTIVITY CHART RELATED TO CIVIL WORK:

Contractor shall provide detailed Bar chart of activities based on completion period and similar software and get approval prior to starting the work. Mile stones for supply of important material & completion of specific jobs shall be indicated clearly.

D3.3 MAKE OF MATERIAL:

Contractor shall provide all material of specific makes accepted during discussion stage or from approved list of makes. In case of any problem / difficulties in procurement of such items, alternative makes will be approved by Engineer & the Director IITM based on samples and specifications submitted by contractor.

Alternative material shall be procured only after written approval for makes. Procurement and use of material of makes not in approved list shall be sole responsibility of the contractor. Contractor shall replace all such material at no additional cost within a stipulated period.

D.4 AUTHORITIES AND LAWS:

Contractor shall confirm to all provisions of any law pertaining to works and to the regulations and by laws of related authorities and for water/electricity supply. Contractor shall indemnify the Director IITM /Engineer from all conflicts arising out of provisions of regulations & laws.

D.5 MATERIAL AND WORKMENSHP:

All the materials to be supplied for execution of works shall be of first quality, new and strictly as per specifications. In case employer procures such items and hands over the same



for fixing to the contractor, the contractor will receive the goods, open the crates and report any discrepancies, store it in his custody until required, install and commission it with necessary care and the best workmanship. The contractor shall be responsible for any loss or damages once the materials are supplied to him in good order and condition.

All the installation rates are deemed to include handling erection, fabrication services & erection hard ware required for all items

All the works shall be executed with highest quality of workmanship and as directed by the Director IITM /engineer. In case of mockups or approved samples, the quality of the same shall be adhered to for all works and any work quality & material below that standard will be rejected.

D.6 SUPERVISION:

A competent representative of contractor shall be available at work site for supervision of works and for co-coordinating, receiving instructions from owner/consultant during entire period of contract.

The supervisory staff required shall depend on value & complexity of job. The supervisory infrastructure planned shall be provided in writing along with a bar chart. For all works up to 30 lacks at least one engineer with 4 to 6 years project execution experience shall be available for coordination.

For all works above 30 lack one engineer with 6-8 years experience in execution of similar projects will be available on site full time. He will be assisted by adequate supervisory staff.

For all projects of value 100 lacks & above, coordination & site activities shall be handled by a project manager with minimum 10 years project execution & planning experience.

Adequate engineers & supervisory staff will assist him.

D.7 ACCESS TO WORK:

Director IITM or their authorized representative shall have access to works being carried out at all reasonable times. No person, not authorized by the Director IITM except representatives of public authorities shall be allowed at work site at any time.

D.8 SUB-CONTRACT:

The complete work included in the contract shall be executed by the contractor and the contractor shall not sub-contract/sub-let work or part thereof without prior written consent from the Director IITM. However, contractor shall not be relieved from the responsibility of execution of works as per contract under any circumstances.

D.9 SCHEDULE OF QUANTITIES AND DRAWINGS:

D9.1 SCHEDULE OF WORK:

The schedule of quantities indicates nearest approximate quantities of the items works. There is a possibility of upward or downward variation of quantities due to site modifications. Any variation in quantities of the individual items as per schedule and overall



cost variation of 10% and 25% of individual items shall be accepted by contractor without change in the approved rates in work order. Contractor shall take exact measurements for items like cables, earth strips prior to bringing and cutting the same. If variation is beyond above stipulated limits, such items shall be carried out after seeking approval from Director, IITM. However no excess payment claims for additional quantities shall be entertained if variation is established prior to deliveries of stipulated quantities.

D.9.2 GENERAL INFORMATION ON DRAWINGS :

Rates quoted for all 'Unit Rate' (UR) items shall be deemed as valid for any quantity as may be required for completion of work. The drawings enclosed indicate extent and general arrangement of various equipments. These are for guidance of contractor and exact locations, dimensions; clearance will be governed by site conditions, buildings and statutory rules. Contractor is required to go through the drawing and regulations prior to starting of works. Any discrepancy/changes required shall be reported to the Director IITM . Contractor shall prepare all 'working drawings' and get them approved from the Director IITM prior to starting the work.

The working drawing shall be submitted to Director IITM within a specific time frame from date of order as mutually decided.

Drawing for all bought out items / panels shall be submitted for the Director IITM approval within a specific time frame & prior to starting any work. All drawings shall be submitted in at least 3 sets.

D.9.3 PROCURMENT OF MATERIALS:

Contractor shall bring quantities of items like cables, earthing strips, etc. after specific measurement. Director IITM will not take over excess quantities of any items unless it is specifically agreed. Contractor shall have to take back all such quantities without any financial burden on Director IITM.

D.10 SUFFICIENCY OF SCHEDULE:

The contractor shall be deemed to have satisfied himself before tendering as to correctness and sufficiency of his tender for works and prices quoted therein which shall cover all obligations under contract for satisfactory completion of works, and stipulated performance of system/equipment in his preview.

D.11 MEASUREMENTS & BILLS:

Measurements and billing shall be done by specific method detailed bellow.

1. Contractor shall maintain a proper measurement book (Triplicate) on site and take joint measurement from time to time.
2. Director IITM's representative shall check these measurements from time to time. Coordination for checking will be contractor's responsibility.
3. Contractor shall make bills based on checked measurements only.



4. Bills shall be made in standard and cumulative formats only. Non cumulative Bill will not be accepted.
5. Contractor shall submit minimum 3 copies of bill with
 - a) Measurement sheets copies duly signed.
 - b) Copies of signed chalan
 - c) Summary sheet.
 - d) Site progress photographs.

Measurements will be certified within 7 working days. Contractor will claim extra items vide separate bills only after rate approval of such items. For any additional item prior approval of the Director IITM should be obtained with recommendation of the consultant.

D.12 REMOVAL OF WORKS:

The Director IITM during the progress of work have power to order in writing removal from the works any material / installations which in their opinion are not as per specifications or instructions, and for carrying out rectification/rework within specified time and contractor shall carry out such removals / rework as per specification at his own cost. The Director IITM can get such rectifications / rework done from other agencies at the cost of contractor, if the same are not carried out by them in the stipulated and agreed period.

D.13 COMPLETION CERTIFICATE:

D13.1 COMMENCEMENT DEFECT LIABILITY PERIOD:

The work shall be deemed to have been completed on written certificate signed by contractor and by the representative of Director IITM that they have been virtually completed. The "Defect Liability Period" shall commence from the date of such certificate.

D13.2 COMPLETION DRAWINGS & DOCUMENTS:

On completion of works, prior to getting completion certificate contractor shall prepare as built drawings in association and to satisfaction of consultant/Engineer giving all particulars.

1. Exact locations of Load break switch (LBS)/ Feeder pillar (FP) along with chain ages along with route map.
2. Locations of straight through joints.
3. Locations of full round RCC pipes.
4. Earthing details

Contractor shall submit the as-built drawing in 3 sets of prints and one set of reproducible to the client. Contractor shall also submit detail drawings, instruction & maintenance manuals & test certificates for all bought out items. Test certificates of all tests carried out certificates at site shall also form part of this. One set each of all handing over documents shall be given to MSEDCL Authorities / Director IITM.

D.14 DEFECT LIABILITY PERIOD:

Any defects, faults, deterioration in performance of the material and installations which may appear; during the "Defect Liability Period" of five years or any period as agreed by both parties from virtual completion of contract shall be amended/made good by the contractor



at his own cost within a reasonable time. In case of default, Director IITM may employ and pay other person to make good the defects and deduct the expenses from the dues payable to contractor on certification from M.S.E.D.C.L /Institute's Authorities.

D.15 CONTRACTOR'S RESPONSIBILITY:

Contractor shall be responsible for injury to person animal or things, for all damages caused to property from operations or negligence of himself or his employees/subcontractors. The contractor shall indemnify Director IITM / M.S.E.D.C.L Authorities and hold them harmless in respect of any and all expenses arising from such injury or damage and claims arising thereof.

The damages to the property, plant and equipment caused due to such negligence shall be made good by the contractor at his own cost to the satisfaction of the Director IITM / M.S.E.D.C.L Authorities within a specific time. The Director IITM in concurrence with M.S.E.D.C.L Authorities shall be entitled to deduct amount of damage, compensation for loss arising from such damages / injuries / accidents in case of default. All laws related to PF, ESI, Medical insurance etc. shall be adhered to by the contractor. No child labour shall be employed by contractor.

D.16 INSURANCE & INDEMNITY:

D16.1 LABOUR LAWS:

Contractor shall have valid PF, ESI registration. All laws related to Labour, PF, ESI, Medical insurance etc, shall be adhered to by contractor. No child Labour shall be employed by contractor.

D16.2 GENERAL INSURANCE:

Contractor shall provide necessary insurance cover for all equipment and material in his scope till the system is handed over. Necessary insurance cover shall also be provided for manpower employed on site. Contractor shall identify the Director IITM and their representative and their employees and hold them harmless in case of any damages, injuries /accident and any claims arising out of them.

D.17 DATE OF COMMENCEMENT:

The date of commencement of work shall be accounted from the 3rd day after receipt of LOI by contractor unless otherwise stated specifically. After submission of agreement within 15 days, final work order will be issued.

D.18 LIQUIDATED DAMAGES :

The contractor shall pay liquidated damages of 1.0% of the balance work value per week subject to a maximum of 10% of value of work order in case of delays beyond the accepted completion period for reasons solely attributed to him.

D.19 TIME EXTENTION:



If in the opinion of Director IITM the work is delayed (a) by force majeure, (b) by reasons beyond control of contract, extension of time for carrying out the works can be sanctioned by Director IITM on written request from contractor with due reasoning / supporting.

Force Majeure shall mean & include compliance with statutory laws & regulation, Government order or change in orders, war & war like conditions acts of civil & military authorities, fires, floods, earthquakes and other acts of God, sabotage, revolt, Strikes & lockout of more than 2 weeks. However contractor & Director IITM in such case should devise means of expediting the progress for performance as per contract.

D.20 TERMINATION OF CONTRACT:

Director IITM shall be entitled to terminate the contract in case contractor fails to fulfill one or more conditions of contract, or it is noticed that the contractor;

- a) Has abandoned the work.
- b) Has failed to commence the work or has without any lawful excuse under contract conditions suspended work progress for more than one week or,
- c) Has failed to proceed with the works and failed to make such due progress for timely completion of works or.
- d) Has failed persistently to observe and perform works as per specifications and contract conditions or.
- e) Has employed services of sub-contractors/sub-let all or part of works without prior permission of Director IITM.

Then and in any of the above said cases Director may not withstanding any previous waiver, can terminate the contract after giving seven days notice in writing to the contractor without affecting powers of Director IITM / M.S.E.D.C.L authorities and obligation and liabilities of the contractor.

Director IITM shall also be entitled to recover any losses due to default of contractor, incurred by him for carrying out / completing works as certified by Institute's Authorities.

D.21 CERTIFICATION AND PAYMENTS :

The contractor shall be paid by the Director IITM from time to time under interim measurements certified by representative of the Institute on account of work executed in accordance with contract & to satisfaction of Engineer with certain retention till the work is completely executed. On virtual completion of the works, contractor shall be paid final installment retaining certain fixed percentage over a period known as "Defect Liability Period" as security. The final balance shall be payable to the contractor after expiry of "Defect Liability Period" and after such certificate is issued by Institute's Authorities. Director IITM shall have power to withhold payment against work or part thereof not carried out to his satisfaction.



D.22 The decisions, opinion, direction, certificates with respect to clauses 9,13,17,18 here of shall be final conclusive and binding on the contractors without appeal. All other decisions, opinion, direction certificates etc. shall be subject to right of arbitration.

D.23 ARBITRATION:

All the disputes of any kind in connection with contract shall be referred to Institute's Authorities and settled in writing by him. If any party is dissatisfied with such decision except for clauses indicated in clause 22 they are entitled to bring such disputes for arbitration.

Both parties shall appoint Arbitrator/s and his/their decision shall be final and binding on both parties.

D.24 TECHNICAL SCRUTINY OF FINAL BILL:

The Director IITM shall have right to get works and bills technically scrutinized at the time of payment of final bill. Director IITM shall be entitled to recover any money found to be over paid or over certified during such scrutiny.

D.25 CO-ORDINATION:

Contractor or his authorised representative shall be responsible for co-ordination with all other agencies working at site for smooth functioning and timely completion of works.

The Contractor shall arrange his work program to suit the building progress and priorities given by Director IITM.

Site meeting: Qualified/responsible representative shall attend necessary site meeting from contractor's side to take site instruction/decision in view of trouble shooting and progress review of works. The representative of Institute shall attend the meetings as required.

D.26 PRICES:

The prices quoted in the schedule of works shall remain firm during the period of contract. Bidder shall be clearly state taxes, statutory duties and levies which he is required to pay. The rates quoted by Bidder for the items in schedule of rates shall be exclusive of all taxes, duties etc. No separate amounts shall be payable to contractor on this account. Any upward statutory duty / tax variation shall be payable on production of proof and necessary reduction shall be effected for downward variation.

D.27 EXTRA ITEMS :

Contractor may be required to carry out extra items due to site requirements or changes. All such items shall be carried out by contractor after written approval from Director IITM client. Contractor shall submit a rate analysis of these items based on market rates. A margin of 10% shall be allowed over and above the expenses incurred. Escalation shall not be allowed on any items.

D.28 SECURITY DEPOSIT:



Successful bidder shall have to pay an amount of 5% of the order value at the time of starting the work in terms of bank guarantee from Nationalised bank or demand draft of equal amounts in favour of the Director IITM for entire period of contract up to virtual completion period.

D.29 PERFORMANCE GUARANTEES:

The contractor shall guarantee performance of plant and equipment and workmanship against fault for a period of 5 (five) years called as "Defect Liability Period". A certain percentage of work value 5% or as per payment terms shall be retained for the entire "Defect Liability Period" as security. Such retention can be released on furnishing a performance bond in form of bank guarantee from Nationalized bank or demand draft of equal amounts for 5 years in favour of the Director IITM, Pune.

D.30 PAYMENT TERMS:

Contractor shall be paid 10% interest free mobilization advance after detailed bar chart is approved. Advance shall be paid against BG from nationalized bank. This will be recovered from running bills in equal installments

60% of supply value against supply of material at site.

15% of supply value & 75% of labour value on installation

10% against receipt of charging permission from Electrical Inspector and submission of work completion report to M.S.E.D.C.L

10% against testing and commissioning

Balance 5% can be released against performance B.G. of equal amount of 60 months from the date of virtual completion certificate. Minimum amount of the bills shall be 10% of the order value.

SECTION D-II

Special Condition of Contract

D-II.1 BAR-CHART:

Contractor shall prepare bar chart and finalize the same in consultation with Institute's authorities project consultants before mobilization advance is paid to the contractor.

Following items shall be included;

- a. Time required for each activity and their relationship.
- b. Quantities in each activity.
- c. Resource planning such as equipment and tools and manpower to be employed for each activity.
- d. Cost of each activity.
- e. Schedule of drawings required by him for completing the project as per chart.

Bar charts shall be done in M.S. Project or equivalent software and shall be available on CD's. The Bar chart shall be reviewed in every site meeting.

CONTRACTOR will be bound to provide the minimum resources shown in the bar chart. In case it is found at any interim stage that the PROGRESS OF WORK is slow and completion



time of any activity is likely to extend beyond the target dates the CONTRACTOR will have to increase the planned resources.

Provision of time will be made by the CONTRACTOR for other agencies to carry out their part of the work and such lapse of time will be considered by the CONTRACTOR in the planning schedule. No compensation will be paid for idle labour due to work of other contractors.

D-II.2 WORK- PROGRESS:

Contractor shall submit progress report for every site meeting with updated bar-chart marking up to date. Progress up to previous day compared to planned bar chart and % comparison (lag/lead) with approved bar chart. Monthly progress reports shall accompany 'selective photographs' of works carried out at site and showing the progress (postcard size.)

D-II.3 PRECEDENCE ORDER:

1. Articles of agreement of IIA
2. Drawings
3. Bill of Quantities
4. Special conditions of contract
5. General specification
6. General condition of contract

D-II.4 VARIATION IN THE CONTRACT SUM:

Rates of contractor shall be valid for any increase or decrease of value of the contract. CONTRACTOR shall not refuse to carry out any work at the rates mentioned in the tender for the reason of change in the quantity of any item.

D-II.5 DRAWINGS & DOCUMENTS:

The contractor shall, upon receipt of drawings and documents, study and examine them thoroughly and bring to the notice of the Institute's Authorities any discrepancy found therein before commencement of work. Failure to do so will be at the risk & responsibility of the contractor and any additional expenses incurred will be bared by the contractor.

D-II.6 INSURANCE:

Contractor shall insure all the equipment and work in his scope including necessary transit insurance.

D-II.7 QUANTITIES:

Contractor shall, based on shop drawings check the quantities and bring in required quantities after establishing the same.

Abnormal increase or decrease of any quantities compared to BOQ shall be brought to notice of Institute's Authorities for verification and shall be ordered after verification. Balance material will not be taken over by Director ,IITM unless mutually agreed at the time of order finalization or acceptance of order and recorded in the discussion.



SECTION – E

SAFETY REGULATIONS

- E.1** Readily accessible First Aid Kit including adequate sterilized cotton and dressing shall be provided on site.
- E.2** Any injured person shall be taken to nearest public hospital without delay.
- E.3** All workmen working at heights shall be provided with safety belts.
- E.4** Portable ladders shall be of heights less than 8 meters. In case of ladders above 8 meters additional man shall be provided for holding the ladders.
- E.5** Workers engaged in welding and related works shall be provided with protective eye shields and gloves.
- E.6** The excavations, trenches etc. shall be provided with necessary signals, barricades, obstacles etc.
- E.7** All the electrical connections taken for construction purpose shall have earthing wires provided for equipment earthings.
- E.8** Open/temporary jointing of the cables shall be avoided and all connections shall be taken through proper sockets & plug tops, Insulated joints and switches etc.
- E.9** Live wires shall not be laid on ground / road or taken on surface without protective cover.
- E.10** All water sumps shall be underground or otherwise shall have covers.
- E.11** All workmen and supervisors shall be provided with helmets / safety caps. All visitors / Engineers shall also wear helmets when moving on sites.
- E.12** Safety apparatus like hand gloves of appropriate class shall be used for all testing commissioning activities. Proper care through danger notice boards, personal vigil shall be taken during such operation to avoid Injury and damage.
- E.13** Protective switchgear shall also be used for all temporary works.



S ECTION – F

TECHNICAL SPECIFICATIONS

F.1 GENERAL:

- F.1.1** The entire electrical installation shall be carried out in accordance with latest Indian Electricity Code and relevant IS Standards up to date. The work shall also comply with all statutory regulations of supply agencies, state inspection authorities and fire regulations.
- F.1.2** Contractor shall be responsible for obtaining all necessary statutory approvals, clearances, sanctions, drawing approvals and getting actual connections.
- F.1.3** Definition of terms pertaining to all technical requirements as per IEC / IS shall apply
- F.1.4** Contractor shall submit all necessary drawings for scrutiny and approval by Engineer / Consultant prior to commencement of work. Contractor shall immediately bring out the difficulties faced in execution of works to the notice of Engineer / owner / consultant.
- F.1.5** All material, equipment, fittings used in the installation shall be of approved quality conforming to relevant IS specifications.
- F.1.6** On completion of works contractor shall carry out all necessary tests including but not limited to pressure test, insulation resistance test, continuity of conductors and earth resistance and functional tests along with commissioning checks to the satisfaction of Consultant / Engineer. Contractor shall employ services of specialist agency for testing of substation equipment, H. T. Cables & H. T. Joints, relays & for harmonic analysis.
- F.1.7** Contractor shall furnish necessary test certificates as required by authorities and consultant.
- F.1.8** List of standards relevant to the works is enclosed.
- F.1.9** Installation of equipment shall include all necessary works and fixing accessories like hardware, clamps, round blocks supports boxes etc. required for completing installation satisfactorily.
- F.1.10** Complete location/room wise technical and functional testing will be done for equipments & installation before handing over and a consolidated acceptance test report shall be prepared by contractor based on standard formats along with test certificates of bought out items, certificates of testing carried out at site. All equipment & installation test will be done jointly with representatives of client, consultant and signed jointly for the acceptance with remarks if any.
- F.1.11 MODE OF MEASUREMENT**
 - 1.11.1** Excavations, refilling, reinstating, removing excess soil etc. in all types of strata except Hard rock for laying cables, pipes and earthing conductor will not be measured separately and will be included in respective items. Only excavation in hard rock will be measured separately.

F-2 CABLES & CABLE LAYING

F.2.1 H.T. CABLES :



1. The H.T. cables shall be XLPE insulated of appropriate voltage class sheathed, armored multistoried aluminum conductor manufactured in accordance with IS 7098 part II
2. The cables shall be supplied with non-returnable wooden drums in appropriate lengths and shall be free from twists and surface damages.
3. The ends of the cables shall be properly sealed and secured so as to avoid water seepage during transit and storage.
4. The cables shall be laid at a depth of 1000mm minimum and shall have 50mm sand bedding;
5. Cables shall be laid with the help of jacks and rollers to avoid dragging and twisting. Sufficient loops shall be provided at ends and in center. Bending radius of at least 15D shall be provided.
6. Cables shall be supported with protective pipes and clamps on vertical runs and shall be laid through appropriate RCC Hume pipes for road and gutter crossings.
7. Heat shrinkable jointing kits of reputed makes shall be used for indoor/outdoor end terminations. Heat shrinkable boots shall be provided for bushing connections.
8. Routine tests inspection as per IS standard shall be offered for clients representative for cables if specifically asked for and shop inspection shall be done for cable lengths 250 mtrs. & above for all H .T. Cables.
9. HT Cable needs to be tested for HIGH VOLTAGE TEST & MEGGER after Completion of joint or before charging.

Shop inspection shall be offered for routine tests if specifically asked for.

F.2.2 LAYING:

1. The cables shall be thoroughly inspected for transit damage and irregularity in sheath etc.
2. Sufficient manpower with necessary equipment like jacks, rollers shall be provided for unwinding and laying the cables and dragging and twisting shall be avoided. Proper unwinding methods shall be used to avoid twists & cable should be meggered before starting laying.
3. Cables shall be laid at a depth of at least 1000 mm from ground level with 50mm sand bedding, brick box with cushion for protection. Bending radius provision of at least 15 D shall be kept while laying. The trenches shall be filled and reinstated layer by layer leaving a crown on top.
4. H.T. and L.T. cables shall not be laid in same trench. When more than one cable is laid in same trench a gap of at least 150mm shall be kept between the cables.
5. Cables laid on walls; trenches shall be supported at every 600mm for vertical run and every 450mm for horizontal run. Suitable clamps shall be provided for fixing and

support. Vertical runs near ground level shall be protected by G I Pipes of suitable size up to the height of at least 1200 mm.

6. The length of the cables in schedule will be approximate and actual site measurements shall be taken by contractor prior to cutting any cable.
7. Cable identification tags shall be provided at appropriate location throughout length of cables and at both ends.

F.2.3 JOINTING:



Jointing or end termination of cables shall be done by skilled person only. Straight through joints shall be avoided as far as possible. Heavy-duty compression type brass glands shall be used for all connections. Crimping type lugs with suitable brass/Chrome Plated hardware shall be provided for connections.

F.2.4 TESTING:

Cables shall be meggered as soon as they are brought to site. Insulation resistance shall also be tested.

- a) After cutting.
- b) After laying and preparing the joint.

Following test shall be taken after completing the installation.

- a) Cable continuity.
- b) Earth continuity.
- c) Insulation resistance.

1000V megger shall be used for testing 3 phase 415 Volt systems.

All HT cables shall be pressure tested after making the end joints at site. Insulation resistance tests shall be done by 5000V megger for all H.T. Cables.

F.2.5 CABLE ROUTE MARKER

Cable route marker shall be oval shaped cast iron of minimum 150 mm length. The voltage levels shall be specifically marked on cable route markers. The cable route marker shall have 20 mm G.I. pipe or 20 x 20 x 3 mm MS angle support of suitable length grouted in 150 x 150 x 150 mm 1:3:6 concrete block buried in ground.

F.3 EARTH STATION:

Pipe Electrode Earthing: 50 mm dia. Class-B G.I. Pipe 2.5 mtrs long tapered at bottom and 12mm dia holes at 75mm c/c on all sides for bottom 2.0mtrs with top watering arrangement shall form earth electrode. The electrode has to be buried vertical in ground.



SECTION G

APPROVED LIST OF MATERIAL

NOTE: CLIENT RESERVES RIGHT TO ASK FOR ANY OF THE FOLLOWING APPROVED MAKES TO BE USED DURING DISCUSSIONS.

CONTRACTOR SHALL INDICATE WHICH MAKE HAS BEEN CONSIDERED WHILE QUOTING THE RATES.

A. OUTDOOR HT WORK	
KIOSK METERING (CT / PT)	HUPHEN /MEGAWIN/SCHNEIDER/ EQUIV
T.V . METER / T.O .D. METER/ABT	ABB / L&T / SEB APPROVED/Secure
H.T. CABLES	Havelles/Ravin/Polycab/Torrent/Finolex/as per approval list of M.S.E.D.C.L
H.T. CABLES JOINTS	RAYCHEM / M -SEAL / Zicon
22 KV Load Break Switch	Schneider/Priston/Cromton/ABB
22 KV Feeder Piller	Success as per Infra Project Design of MSEDCL

S ECTION – H

LIST OF IS STANDARD

Sr. No.	IS No. / Year	Description
		A – H. T.
1	IS :3427-1997	AC metal enclosed switchgear and controgear for rated voltages above 1 kV upto and including 52kV
2	IS : 14659-1999	AC metal enclosed switchgear and controgear for rated voltages above 1 kV upto and including 38kV.
3	IS : 10601-1983	Dimensions of terminals of high voltage switchgear and controlgear
4	IS : 5613-1985	Code of practice for design, installation and maintenance of O.H. power lines.
5	IS : 2705-1992	Current transformer
6	IS : 3156-1992	Voltage transformers
7	IS :5819-1970	Recommended short circuit ratings of high voltage PVC cable
8	IS :13118-1991	General requirements for circuit breakers for voltages above 1000V
9	IS :9920-1982	Switches and switch isolators for voltages above 1000V
10	IS:7098-1988	Cross linked polyethylene insulated PVC sheathed cables
11	IS : 3231-1986	Electrical relays for power system protection.
12	IS : 3961 - 1967	Recommended current ratings for cables
		E - CABLE
39	IS:12943-1990	Brass glands for PVC cables.
40	IS:1255-1983	Code practice for installation and m aintenance of power cables upto and including 33kV rating.
41	IS:10418-1982	Drums for electric cables.
42	IS:7098-1988	Cross linked polyethylene insulated PVC sheathed cables.
43	IS:1554-1988	PVC insulated (heavy duty) electric cables.
44	IS :694-1990	PVC insulated (heavy duty) electric cables



SECTION – I
DEVIATIONS FROM GENERAL
CONDITIONS OF CONTRACT

All deviations from general condition of contract shall be filled in hereby the bidder.

SECTION	CLAUSE NO.	DEVIATION
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The bidder hereby certifies that the above mentioned are only deviations from general conditions of contract of enquiry.

DATE :

Signature And Seal of Bidder

SECTION – J
DEVIATIONS FROM TECHNICAL
SPECIFICATIONS

All deviations from specification shall be filled in hereby the bidder.

SECTION	CLAUSE NO.	DEVIATION SPEC. NO.
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The bidder hereby certifies that the above mentioned are only deviations from technical specifications of this enquiry.

DATE:

Signature And Seal of Bidder



SECTION – k
LIST OF DRAWINGS

1. Map of University chowk near Ganeshkhind 132/22KV substation





SECTION – L
DETAILS OF CONTRACTORS

1	Name & Address	:	
2	Banker	:	
3	Solvency	:	
4	Turn over of last Three Y ears	a)	
		b)	
		c)	
5.	Type of Firm : Proprietor / partnership / Pvt. Ltd. / Ltd.	:	
6.	No. of Employees	:	
	i) Directors / Partners :	:	
	ii) Managers :	:	
	iii) Sr. E ngineer :	:	
	iv) Jr. E ngineer :	:	
	v) Supervisors :	:	
	vi) Skilled Technicians :	:	
	vii) Unskilled Workers :	:	
7.	Panel Manufacturing facility as per specifications required	:	Own / Outside
8	Facilities: Fabrication	:	
	Painting / Powder coating	:	
	Testing	:	
9.	Testing Equipment available	:	
	i) 500 / 1000 V M egger	:	
	ii) 5000 V M egger	:	
	iii) Earth tester	:	
	iv) H.V . Test set	:	
	v) Oil Test Set	:	
	vi) Multimeter	:	
	vii) Continuity tester	:	
	viii) Tong Tester	:	
10	H.V. Testing Name of Separate Testing Party	:	
11	Tentative site infrastructure proposed	:	



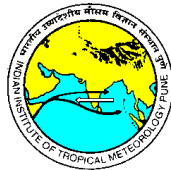
TENDER DOCUMENTS

FOR
(COMMERCIAL SPECIFICATIONS – PART 2)

BOQ

FOR

External Electrical Work- 22KV Power Supply From
Ganeshkhind Sub-Station.



Indian Institute of Tropical Meteorology

Dr. Homi Bhabha Road, Pashan, Pune 411008.

E-mail : lip@tropmet.res.in

Web : <http://www.tropmet.res.in>

Fax : 91-020-25893825

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Indian Institute of Tropical Meteorology, Pune

Name of Work: External Electrical Work- 22KV Power cable supply and laying from Ganeshkhind Sub-Station to I.I.T.M.

BILL OF QUANTITIES

Item Code No.	Description	Unit	Supply			Installation	
			Qty	Unit Rate	Amount (Rs.)	Rate	Amount Rs. Ps.
1	Supply and Installation testing and commissioning of in provided trench/RCC Pipe/Duct, 22KV XLPE cable round armoured ,3X 300 sqmm, stranded aluminium conductor as per IS specifications and ISI marks with outer PVC sheath of pink colour	RMT	4,500				
2	Supply and Laying in provided trench RCC hume pipe spigot type 25 cm dia, 2m long	RMT	100				
3	Supply and Laying in provided trench RCC hume pipe spigot type 15 cm dia, 2m long	RMT	200				
4	Supply and Laying in provided trench RCC half round pipe spigot type 15 cm dia, 1m long	RMT	3,200				
5	Supply and Laying in provided trench G.I pipe class C spigot type 15 cm dia, 1m long	RMT	12				
6	Excavation of cable trench 0.5x1.0m size and refiling of Excavated soil and refixing of paver blocks as per original condition including road damage and reinstatement charges to be paid to P.M.C	RMT	3,500				
7	22 KV Load Break Switch compact type with SF 6 Gas Schnieder make without HRC fuse complete with glands and foundation/plinth	No	2				



Indian Institute of Tropical Meteorology, Pune

Name of Work: External Electrical Work- 22KV Power cable supply and laying from Ganeshkhind Sub-Station to I.I.T.M.

8	22 KV feeder pillar as per M.S.E.D.C.L. Infra project design complete with glands and foundation	No	1				
9	22 KV Cable joint H.S type ID size 3x300 sq.mm along with cable marker	No	10				
10	22 KV Cable joint H.S type OD size 3x300 sq.mm along with cable marker	No	1				
11	22 KV Cable joint H.S type S. Through Joint size 3x300 sq.mm along with cable marker	No	16				
12	HT Pipe type earthing	No	10				
13	Concreting	CMT	10				
14	Supply of (trivector)ABT meter as per M.S.ET.C.L. specifications to be provided on control panel at 132/22 KV Ganeshkhind substation - Secure Make	No	1				
	VAT composite						
	Service Tax						
	Total						

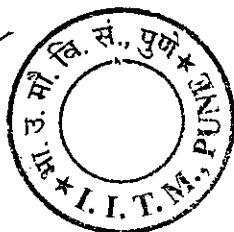
MINUTES OF PREBID MEETING HELD ON 29.11.2010 FOR EXTERNAL ELECTRICAL WORK—22KV POWER SUPPLY FROM GANESHKHAND SUB-STATION

No	Questions from Bidder	Clarification
1	PQT (Technical-Bid) Evaluation Criteria	<ol style="list-style-type: none"> 1. The Contractor shall registered as Class- A Contractor with Chief Engineer (Electrical), PWD Maharashtra or equivalent registration with CPWD, MES, MSEDCL, Railway ,CSIR Laboratories etc. 2. The contractor is requested to show proof of his latest valid registration certificate (original) with above bodies for the prescribed amount. 3. Registration under Shop Act. 4. Certificate for registration with EPF/ESI/Shop Act & Service Tax Authorities. 5. Any other Statutory obligations as are required to be compiled with from time to time 6. The Contractor shall submit the Documentary evidence showing turn over for last three year with at least one single order more than ₹ 3 crores. 7. The contractor shall submit the latest income tax return copy duly acknowledged by Income tax authorities. 8. Copy of PAN CARD duly attested. 9. Since the time is essence of the contract, no extensions will be granted in any case. The completion period is 03 months from the date of issue of LOI including necessary permission from Pune Municipal Corporation 10.The contractor should produce a list of work in hand and completed during the last three years 11.Financial status of agency (Proof document should be enclosed) 12.It is also requested to indicate clearly in technical bid minimum and maximum time required for completion of project & contractor who will quote minimum time will be preferred.
2	Incentive clause	0.25% per week bonus will be awarded to the company on completion maximum to 2.5% for early completion of the work.
3	Mobilization advance	10 % mobilization advance of work order value shall be paid on request, against submission of Bank Guarantee from nationalized bank for the same.
4	Penalty clause	If the contractor /supplier fails to supply, install and

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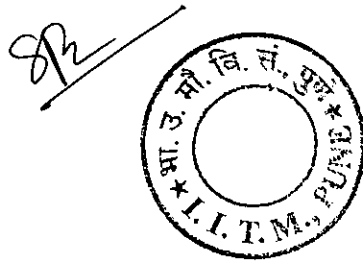
		commission the system as per specifications mentioned in the order within the due date, the contractor / supplier is liable to pay liquidated damages of one percent value of the Purchase Order awarded, per every week delay subject to a maximum of 10% for every week beyond the due date and such money will be deducted from any money due or which may become due to the contractor / supplier.
5	VAT	(5%) will be paid on actual basis.
6	Service Tax	10.3% will be on labour portion excluding PMC/MSEDCL Charges.
7	PWD Electrical Inspector Charges	Fees claimed by Electrical Inspector, Pune will be reimburse on submission of receipt in the name of Director, IITM, Pune.
8	Octroi charges	Octroi payment if any, the same please be shown separately.
9	Payment terms	As per tender documents
10	BG Performa	Uploaded on website.
11	Supervision Charges	1.3% supervision charges as per MSEDCL sanction order is already paid to MSEDCL by IITM.
12	Performance Guarantee.	Performance bank guarantee is for quality of material and workmanship. As the period of 5 years is as per MSEDCL requirement, it will not be reduced .However in case there is damage to cable due to activity of third party, the contractor shall repair the same and repair charges will be paid by IITM.
13	PMC Charges	The contractor shall quote their rates including the PMC charges, the copy of work permission from PMC shall be submitted to the Institute before starting the work at site. PMC charges will be borne by this Institute on actual basis.
14	Cable Specification	The contractor shall refer MSEDCL (Infra Projects Specification No. MM/I/HTXLPE/2006).Cable shall be procured from approved list of manufacturers by MSEDCL.Only after approval of GTP from MSEDCL the cable should be ordered.
15	Earthing Details	It is clarified in revised BOQ.
16	22 KV Bay at Ganeshkhind Substation	The 22 KV bay at 132/22 KV /11KV substation at Ganeshkhind is already sanctioned and year marked for IITM by MSETCL.The work of this bay is in progress and it is expected to be ready within 2 to 3 months.

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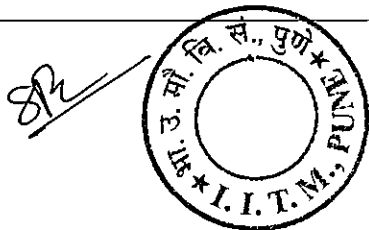
Note-

- 1) Tenderers should inspect the site before submission of bid (Technical /Commercial) and he should also get acquainted with the site conditions
- 2) Tenders shall be valid for period of 120 days from the date of opening. Earnest money is to be paid as prescribed in the tender documents
- 3) If any information furnished by the contractor is found to be incorrect at later stage, he shall be debarred from tendering.
- 4) Earnest Money will be forfeited if the contractor fails to commence the work as per letter of award
- 5) Revised bill of quantity is enclosed
- 6) The quoted amount shall include the liasoning fees of all statutory bodies involved in this project.

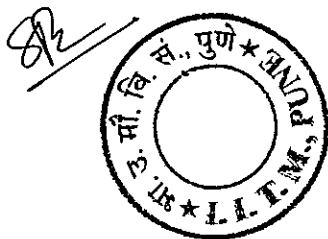


Revised Bill of Quantity

Item Code No.	Description	Unit	Supply			Installation	
			Qty	Unit Rate	Amount (Rs.)	Rate	Amount Rs. Ps.
1	Supply and Installation testing and commissioning of in provided trench/RCC Pipe/Duct, 22KV XLPE cable round armoured ,3X 300 sqmm, stranded aluminium conductor as per M.S.E.D..C.L Technical specification No.MM/I/HTXLPE/2006 (Under Infra projects) The colour of outer sheath will be pink. The cable drum shall be of steel frame (RMT 4500x2run=9000RMT)	RMT	9000				
2	Supply and Laying in provided trench RCC hume pipe spigot type 25 cm dia, 2m long	RMT	200				
3	Supply and Laying in provided trench RCC hume pipe spigot type 15 cm dia, 2m long	RMT	400				
4	Supply and Laying in provided trench RCC half round pipe spigot type 15 cm dia, 1m long	RMT	7000				
5	Supply and Laying in provided trench G.I pipe class C 15 cm dia with coupling for joint 6m long to be laid across nala along with required supports	RMT	24				
6	Excavation of cable trench 0.5x1.0m size and refiling of Excavated soil and refixing of paver blocks as per original condition including road damage and reinstatement charges to be paid to P.M.C	RMT	3500				



7	22 KV Load Break Switch compact type with SF 6 Gas Schnieder make without HRC fuses complete with glands and foundation/plinth	No	4				
8	22 KV feeder pillar as per M.S.E.D.C.L. Infra project design complete with glands and foundation	No	2				
9	22 KV Cable joint H.S type ID size 3x300 sq.mm along with cable marker	No	20				
10	22 KV Cable joint H.S type OD size 3x300 sq.mm along with cable marker	No	2				
11	22 KV Cable joint H.S type S. Through Joint size 3x300 sq.mm along with cable marker	No	32				
12	HT Pipe type earthing,50mm dia G.I Pipe,2.5meter long along with G.I Nut bolts with 8 SWG, double G.I Wire and 15Kg salt and charcoal each including excavation of required pit	No	20				
13	Concreting for foundations and plinths Of feeder pillar/LBS 1:3:6 ratio	CMT	20				
14	Supply of (trivector)ABT meter as per M.S.ET.C.L. specifications to be provided on control panel at 132/22 KV Ganeshkhind substation - Secure Make	No	1				
	VAT						
	Service Tax Excluding of PMC Charges						
	Total						



ANNEXURE - B
(Ref. Para 7.1 of Chapter 7)

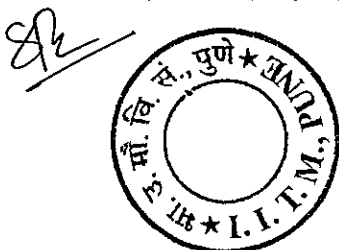
MODEL BANK GUARANTEE FORMAT FOR FURNISHING EMD

Whereas
(hereinafter called the "tenderer")
has submitted their offer dated.....
for the supply of
(hereinafter called the "tender")
against the purchaser's tender enquiry No.
KNOW ALL MEN by these presents that WE
of having our registered office at
..... are bound unto
(hereinafter called the "Purchaser")
in the sum of
for which payment will and truly to be made to the said Purchaser, the Bank
binds itself, its successors and assigns by these presents. Sealed with the
Common Seal of the said Bank this..... day of20.....

THE CONDITIONS OF THIS OBLIGATION ARE:

- (1) If the tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.
- (2) If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:-
 - a) If the tenderer fails to furnish the Performance Security for the due performance of the contract.
 - b) Fails or refuses to accept/execute the contract.

WE undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition or conditions.



**Sub: Amendment In Pre-Bid MOM for Supply and laying of Electrical Cables
from Ganeshkhind (Chaturshringi) Sub-Station upto Metering Unit at IITM
Pune.**

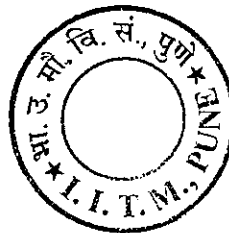
FOR: The contractor shall quote their rates including the PMC charges, the copy of work permission from PMC shall be submitted to the Institute before starting the work at site. PMC charges will be borne by this Institute on actual basis.

READ: The contractor shall quote PMC Liasoning Charges separately(Refer revised B.O.Q item No.6(B)).The copy of work permission from PMC shall be submitted to the Institute before starting the work at the site.PMC Charges will be borne by this Institute on actual basis.

Item Code No.	Description	Unit	Supply			Installation	
			Qty	Unit Rate	Amount (Rs.)	Rate	Amount Rs. Ps.
	For BOQ Sr.No.6						
6	Excavation of cable trench 0.6x1.0m size and refiling of Excavated soil and refixing of paver blocks as per original condition including road reinstatement charges to be paid to P.M.C	RMT	3,500				
	Read						
	A)Excavation of cable trench 0.6x1.0m size	RMT	3500				
	B) Liasoning with PMC	JOB	1				
6	C) Arranging refilling of soil fixing of paver blocks as per original condition from PMC for entire route against payment made to PMC for road damage & road reinstatement on actual basis as per sr no 13 of prebid MOM.						As per Actual

Revised Bill Of Quantities is enclosed.

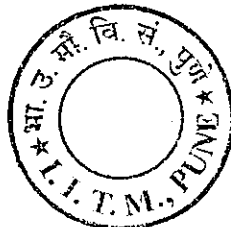
[Handwritten Signature]



Revised Bill of Quantity (R1)

Item Code No.	Description	Unit	Supply			Installation	
			Qty	Unit Rate	Amount (Rs.)	Rate	Amount Rs. Ps.
1	Supply and Installation testing and commissioning of in provided trench/RCC Pipe/Duct, 22KV XLPE cable round armoured ,3X 300 sqmm, stranded aluminium conductor as per M.S.E.D..C.L Technical specification No.MM/I/HTXLPE/2006 (Under Infra projects) The colour of outer sheath will be pink. The cable drum shall be of steel frame (RMT 4500x2run=9000RMT)	RMT	9000				
2	Supply and Laying in provided trench RCC hume pipe spigot type 25 cm dia, 2m long	RMT	200				
3	Supply and Laying in provided trench RCC hume pipe spigot type 15 cm dia, 2m long	RMT	400				
4	Supply and Laying in provided trench RCC half round pipe spigot type 15 cm dia, 1m long	RMT	7000				
5	Supply and Laying in provided trench G.I pipe class C 15 cm dia with coupling for joint 6m long to be laid across nala along with required supports	RMT	24				
6	A)Excavation of cable trench 0.6x1.0m size	RMT	3500				
	B) Liaisoning with PMC	JOB	1				
	C) Arranging refilling of soil fixing of paver blocks as per original condition from PMC for entire route against payment made to PMC for road damage & road reinstatement on						

SPR



	reinstatement on actual basis as per sr no 13.						
7	22 KV Load Break Switch compact type with SF 6 Gas Schnieder make without HRC fuses complete with glands and foundation/plinth	No	4				
8	22 KV feeder pillar as per M.S.E.D.C.L. Infra project design complete with glands and foundation	No	2				
9	22 KV Cable joint H.S type ID size 3x300 sq.mm along with cable marker	No	20				
10	22 KV Cable joint H.S type OD size 3x300 sq.mm along with cable marker	No	2				
11	22 KV Cable joint H.S type S. Through Joint size 3x300 sq.mm along with cable marker	No	32				
12	HT Pipe type earthing,50mm dia G.I Pipe,2.5meter long along with G.I Nut bolts with 8 SWG, double G.I Wire and 15Kg salt and charcoal each including excavation of required pit	No	20				
13	Concreting for foundations and plinths Of feeder pillar/LBS 1:3:6 ratio	CMT	20				
14	Supply of (trivector)ABT meter as per M.S.ET.C.L. specifications to be provided on control panel at 132/22 KV Ganeshkhind substation - Secure Make	No	1				
	VAT						
	Service Tax Excluding of PMC Charges						
	Total						

SP

