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Tender No.	740
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Issued to M/s. _____

**UTI INFRASTRUCTURE TECHNOLOGY AND SERVICES LTD.
MUMBAI**

Address: UTI Tower, 'Gn' Block, Bandra Kurla Complex, Bandra (E), Mumbai – 400 051.

Tel No: 022 66786000 / 6078/ 6334. Fax: 022 66786005 / 6364

Name of work:

**External Lighting work at UTI Tower, Bandra Kurla Complex, Bandra (E)
Mumbai - 51.**

Last date of submission of tender	:	3.00 p.m. on 24/02/2012
Date of opening of the Tender	:	3.30 p.m. on 24/02/2012
Client ID	:	01
Validity of Tender from the date of opening	:	60 days
Submitted by	:	
Time of commencement from the Work Order date	:	Within Three days.
Stipulated time of Completion	:	Within 30 days from the day of Letter of Indent.
Documents to be provided	:	Indemnity regarding Central Excise Payments, CAR Policy, Agreement.
Earnest Money Deposit	:	Rs. 15,000/- (Rupees Fifteen Thousand only)

Contractor's Signature

Seal

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UTI Infrastructure And Services Ltd.

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Contractor's Signature

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UTI Infrastructure And Services Ltd.

Tender Notice

On behalf of our client, UTI Asset Management Company Ltd we hereby invite sealed tenders in three part system for the above work, as per the enclosed specification, list of materials and as per the terms and conditions spelt out in this notice. You are requested to inspect the site and the nature of work prior to submitting the tenders. The first Part of the Tender will form the Earnest Money Deposit.

The second part will form the Technical Bid and the third part will form the price bid. The rates should be valid for 60 days from the date of opening of the tender. **Also the rates should be inclusive of all taxes and duties for supply, installation, maintenance.**

A. Submission of Tender:

Tenders in sealed covers superscribing “**External Lighting Works at the Office premises and Client ID as mentioned on the cover page (page no.1) of the tender** and quoting the reference number of the letter forwarding this notice should reach the office of UTIITSL as mentioned on the cover page of the tender.

All entries in Tender document must be made in ENGLISH. It must be hand written in INK and must NOT be typed.

A. Submission of Tender:

Tenders in sealed covers super scribing “External Lighting Works at the office premises and Client ID as mentioned on the cover page (page no. 1) of the tender and quoting the reference number of the letter forwarding this notice should reach the office of UTIITSL as mentioned on the cover page of the tender. **Separate envelope to be used for each part.**

The first part will form the Technical Bid and the second part will form the price bid. **The rates should be valid 60 days.** Also the rates should be inclusive of all taxes and duties for supply, installation, maintenance.

All entries in Tender document must be made in ENGLISH. It must be hand written in INK and must NOT be typed.

NOTE: 1) The contractor / tenderer means the person / the firm / the agency who is participating in the contract bid which shall also include their Legal Representatives, Successors, Hirers and Assignee of the firm.

2) Consultant means UTI Infrastructure Technology And Services Ltd. having their office at ground floor, UTI-Tower, Gn Block, Bandra-Kurla Complex, Bandra (E), Mumbai – 400 051. Ph. No.66786078, Fax No. 66786364/6005.

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3) *Engineer-in-charge means, the Engineer/ advisor/ consultants/ specialized agency/ person appointed by the UTI Infrastructure Technology And Services Ltd. who will be supervising the work, certifying the bill and who will also be responsible for the entire project.*

Only the Tender form issued by UTIITSL should be used. Tender should be submitted as mentioned below:

a) **Envelope 1** > *The Earnest Money Deposit in the form of the Demand Draft should be placed in a separate envelope along with the tender duly marked with detail.*

b) **Envelope 2** > *The portion of tender dealing with technical data and overriding conditions if any should be enclosed in an second envelope which should be clearly marked as "Description of Equipment, Technical Data and Over riding Conditions" i e tender document duly signed on each page.*

c) **Envelope 3**> *The Price schedule indicating "Work contract" price for the job quoted by you should be enclosed in one envelope which should be clearly marked in bold letters "Price schedule only"*

*Tender should be submitted in **big cloth bound sealed envelope** super scribing "External Lighting Works at UTI Tower, Bandar Kurla Complex, Bandar (Eat), Mumbai – 400 051" containing **all the three separate sealed envelopes.***

d) *As far as possible correction in the tender documents to be avoided. However in case of any correction, the same should be authenticated by the person who is signing the Tender. Over writing on the tender document in not permitted.*

e) *The Tender should be forwarded in the official letterhead of the tenderer.*

5. The complete Tender documents (duly signed tender conditions, specification, priced bill of quantities etc) should be addressed to "**The Company Secretary, UTI Infrastructure Technology And Services Ltd. (UTIITSL), Ground floor, Gn Block, UTI-Tower, Bandra - Kurla Complex, Bandra (E), Mumbai – 400 051**" and reach the office on or before date fixed and notified in the tender document.
6. The Tenders will not be received after the due date and the time fixed. However, if the UTIITSL desires to extend the time limit, it will do so by informing all the tenderers either before the due date and time fixed for submission or after the due date and time.
7. In case the due date for submission / opening of the tender is declared as a public holiday in the State, (where the tender document is to be submitted), the time limit will be automatically changed to the next working day at the same time.
8. In case, the tenderer does not wish to quote for the work, the same should be informed to UTIITSL over letter / fax addressed to The Company Secretary on or before the due date of submission of the Tender. **The blank Tender also must be returned to the UTIITSL.** The technical specification, design and all other contents of the tender documents are patent and the same should not be reproduced without the prior permission of the UTIITSL. The payment made to UTIITSL towards the cost of the tender document is not refundable.
9. UTIITSL will take no responsibility for delay or loss or non-receipt of tenders after dispatch, by the tenderer.
10. The tenderers are advised to hand over the duly filled tender directly to the office of The Company Secretary (UTIITSL) or ensure that the tender reaches the office before the due date fixed for submission of the tender.

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11. The tenderers are requested to inspect the site of work and acquaint about the site conditions and rules and regulations before quoting the rates. For this, the officials of UTIITSL may be contacted to make the arrangements.
12. The rate quoted should be inclusive of the cost of materials, labour, transportation, loading, unloading, installation, Sales Tax, Excise Duty, Cess, Sales Tax on works contract, VAT or any other expenditure that may be incurred during the course of work.
13. The tender should be submitted strictly as per the terms & conditions spelt out in the tender notice. The tenderer should not make any alteration in the terms & conditions, drawings, specifications etc. In case of any alteration the tender may be considered as invalid/void.
14. Incomplete tenders are liable to be rejected.

B. Opening of the Tender:

1. The sealed tenders will be opened in the presence of the authorized official of the UTIITSL/ CLIENT on the day as specified on the cover page.
2. Intending tenderers who wish to be present at the time of opening of tenders may be present at the office address as mentioned in page no. 3 point on Note. 2 on the day fixed for opening of the tender. Only the cover containing Earnest Money shall be opened first and the cover containing over riding conditioning etc. Shall be opened after opening the envelop of Earnest Money. With out earnest money tender shall be rejected.
3. The envelop containing the price bid would be opened after two-three days. Any vendor who wants revise the price bid would be able to revise the price in that period. The data of opening of the price bid would be conveyed to all the vendors accordingly. All the vendors should give their e-mail address/phone to convey the date for opening of the price bid.

C. Acceptance of the tender :

1. The rates quoted by the contractors should be valid as specified in the cover page.
2. UTIITSL reserves the right to accept / reject summarily any / all tenders in whole or part thereof without assigning any reason whatsoever and also does not bind itself to accept the lowest or any other tender.
3. It will be open to UTIITSL to negotiate the terms including the rates quoted with the lowest tenderer. The negotiated price by UTIITSL will be the contract value and work order will be placed for the said amount.
4. The tenders for the work shall remain for acceptance for a period as specified on the cover page or the period that may be extended by mutual agreement and the tenderers shall not cancel / withdraw the tenders during that period.
5. Each tenderer must submit an Earnest Money Deposit as mentioned on the cover page (page no. 1) of the tender in the form of a **Demand Draft only** in favour of “**UTI Infrastructure Technology And Services Ltd.**” payable at Mumbai drawn on any Nationalised bank (and which shall not bear any interest). **The Demand Draft should be placed in a separate envelope** and the tender

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document duly filled shall along with the tender duly marked with details. **No tender will be received with out EMD in separate cover.** The EMD will not carry any interest. In case of failure on the part of the contractor for commencement of work / delay in execution of the project, the said amount will be forfeited.

6. The Earnest Money will be returned to the unsuccessful tenderer after the intimation of rejection of the tender is sent. The Earnest Money will be retained in the case of the successful tenderer and will get converted as a part of Security Deposit for the due performance of the contract.
7. **Earnest Money Deposit will be forfeited, if the contractor:**
 - a. Revokes the tender or increases the earlier quoted rates within the validity period.
 - b. Refuse, delay to sign and execute the contract after tender is accepted.
 - c. Does not commence the work within the time specified in the letter of intent/work order or 7 days from the issue of such letter, whichever is later.
8. **The tenders will be rejected if ;**
 - a. If the contractor does not quote any of the item / sub-item in the tender
 - b. If the contractors makes the correction in the rate while quoting and not countersigned duly stamped at that particular item of work.
9. The tenders which do not fulfill any of the prescribed conditions will not be accepted.
10. Canvassing in connection with the tender is strictly prohibited.

D. Execution of Work :

1. The work should commence ***within the period specified on the cover page*** from the date of the receipt of work order or the date that may be indicated in the work order. Accordingly, date of commencement of the work will be reckoned from the day as specified in the cover page.
2. The ***work should be completed as specified on the cover page calculated*** from the date of commencement of the work or within the time limit that may be indicated in the work order.
3. Time allowed for execution of work, as specified in tender, shall be the essence of the contract.
4. If the tenderer commits default in commencing the work, as required by the work order and found that the date stipulated cannot be adhered to, UTIITSL shall be entitled without prejudice to any other rights or remedies available may terminate / rescind the contract.
5. If the tenderer fails to carry out the work within the stipulated time mentioned in the work order, the UTIITSL will have liberty ***to impose penalty @ 2% of the certified final bill per week*** of delay subject to an overall limit of 10%, without prejudice to other remedies available. The tenderer has to pay to UTIITSL such amount that may fall short over the amount due to them, if any.
6. However, if UTIITSL is convinced that the delay in execution of the work is beyond the circumstances created by the tenderer, they may award extension of the same to the extent they feel justified based on the request of the tenderer. In such case liquidated damages will be levied for the balance period, if any as provided as per the condition of the tender.

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7. If the tenderer fails to commence the work within the days as specified on the cover page from the date of receipt of intimation for commencement of the work and / or the contractor fails to show progress in execution of work and UTIITSL feels the work cannot be completed within the stipulated time, UTIITSL will have the right to terminate the contract by **giving three days notice** to the contractor, at the full discretion of UTIITSL and the decision of UTIITSL will be final and binding. In case of termination of the contract, the payment if any, due to the contractor will be released only on completion of the entire project. The amount that may be spent for completion of the balance work will be recovered from the contractor. It will be the full discretion of UTIITSL to carry out the balance work through any agency at any rate as per the specification.
8. All the ***materials and workmanship*** shall be of the kind described in the schedule of quantities / specifications and in accordance with relevant BIS codes and as per directions of the Engineer-in-charge.
9. The tenderers shall submit photocopies / originals of vouchers / challans etc., for verification of actual purchases of any material, if so, desired by the Engineer-in-charge.
10. The tenderer shall have to carry out testing of all materials brought on site at their own cost in any institute / laboratory / site of works as desired by the Engineer-in-charge. No extra claim will be entertained for such testing of materials.
11. The tenderer shall not at any time do, cause or permit any nuisance on the site/ do anything which shall cause unnecessary disturbances or inconvenience to the occupants / visitors at site or near the site of work.
12. The quantities indicated in the bill of quantities are approximate and the quantities may vary as per the site conditions / requirements. The rate quoted should be firm for the deviated quantities of work also.
13. The tenderer's workers will not be allowed to stay at the work site.
14. The tenderer or his workers can use the common facilities such as drinking water, toilet etc., provided at the premises. However, it should be ensured that the same should be kept in hygienic condition.
15. Water and Electricity as per the availability at site can be made use of by the contractor. If not available the contractor has to arrange it on his own.
16. In case of any damage to the existing structure, the tenderer should rectify the same free of cost up to the satisfaction of the Engineer-in Charge.
17. UTIITSL will have the liberty to modify the design to a reasonable limit. No extra charges will be paid for execution after such modification.
18. The tenderer should protect the work till its completion and handing over against any possible damage, theft, scratches, etc.
19. The tenderer has to make arrangements for cleaning the work site every day and on completion of the work from the work area at his cost.
20. The tenderer should provide samples of the materials for approval of UTIITSL and the samples will be kept in the custody of the Engineer-in-charge.

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21. Wherever possible the work has to be carried out at the factory of the contractor and the items to be transported to the site.
22. The tenderer should make necessary arrangement for inspection of the items made at his factory / work place by the Engineer-in-charge. The tenderer should complete fabrication and other works at factory and only assembling work and the finishing may be carried out at the site.
23. The tenderer should abide by the rules and regulations for the premises especially on the working hours, entry to the workers to the premises, interpersonal relation with the staff members and other agencies engaged at the site.
24. The tenderer should make necessary arrangement for covering of all the furniture items/ records, if any of the client with cover / cloth during the course of work.
25. The tenderer should arrange a qualified (minimum diploma holder) supervisor at site during the course of the entire work. **The tenderer should arrange a qualified technical supervisor at site during the course of the entire work.** The tenderer should not change the supervisor till completion of the work. The supervisor should be available at site when the work is in progress.
26. Any damage / loss to UTIITSL will be rectified at the cost & risk of the contractor.
27. The workmanship should be of high quality / standard and the decision of the Engineer-in-charge / Consultant shall be final in the regards.
28. The tenderer should not apply primer / putty work / paint or any other finishing material before inspection and certification of the wood work by the Engineer – in – Charge.
29. The tenderer should not engage any person prohibited by the law for execution of the job.
30. The tenderer should carry out the work strictly as per the specification and as directed by the Engineer-in- Charge.
31. All the materials proposed to be used should have the approval of UTIITSL.
32. The materials required for the work **should be purchased only from the manufactures directly or from the approved dealers.** Confirmation for the same may be submitted if so desired.
33. The tenderer should strictly follow the approved colour scheme. The colour scheme will be intimated to the contractor within a week from the date of issue of the work order. However UTIITSL has the liberty to make any other modifications as per requirements.
34. The dismantled material / debris should be removed from the site daily and be transported out to the place as designated by the Municipal Corporation at his own cost.
35. The tenderer should make his own arrangement for storage of materials. UTIITSL may provide some space subject to availability (uncovered) within the premises for storage purpose. Materials only as per requirement are to be stored at site. Security for the material such stood/lying at site will be arranged by the contractor.
36. Any damage / loss will be rectified at the cost & risk of the tenderer.
37. The tenderer has to maintain a book for instructions from the Engineer-in-charge.

E. Payments :

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1. No advance will be paid.
- 1(a.) The billing is to be done in the name of the client as specified on cover page (page no. 1) of the tender.
- 1(b) **The Contractor has to submit the bill strictly as per the format of the specifications as mentioned on the bill of quantities in the tender document.**
2. The running account bills will be released fortnightly for the completed items of work and for the partly completed items based on the percentage of the work executed on proper submission of the bill together with the measurements of the work carried out. The Security Deposit, other statutory deduction and any other amounts as may be deductible / recoverable as per the terms and conditions of contract will be deducted from the running bills.
3. The payment towards the settlement of running bills will be treated as the advance towards settlement of final bill.
4. 10% of the value of each running bill will be deducted as Retention Money / Security Deposit.
5. The final bill will be released on satisfactory completion of the entire work and on completion of all the terms and conditions / obligations spelt out and on proper submission of the bill together with the measurements.
6. 50% of the Security Deposit will be refunded together with the final bill. The remaining 50% will be returned to the tenderer after the completion of defect liability period of *12months*. **Before releasing the security deposit, it is mandatory that the contractor has to take the completion certificate from the respective branch official.**

The contractor should approach the concerned Branch Manager immediately on completion of the 'Defect liability Period' and obtain such certificate so that the Security Deposit should be released. In the event that some rectification or some repairs have to be carried out, the same should be completed and got certified from the concern Branch Manager and forwarded to us for releasing the Security Deposit.

In case the no defect certificate / no objection certificate is not taken by the contractor, then the defect liability period will increase till the said no defect certificate / no objection certificate is obtained by the contractor.
7. Income Tax, Sales Tax on Work Contract, VAT, Cess and / or any other Statutory deductions as per the prevailing rules at the time of execution will be deducted from the payable amount for which certificate will be issued in favour of the tenderer.
8. Tenderer will not be entitled to any interest on Retention Money or any Running account bill money for the time it will remain with the UTIITSL/Client.
9. The items of works as well as the approximate quantities against these items as given in the schedule of ***quantities and the same should not be considered precise quantity of works to be carried out.*** The tenderer shall be paid on the basis of the actual quantity of completed work as per the provisions of the contract and as per the specifications.
10. It is possible that certain extra items of work may come up during the course of work. The payment for such items will be made based on Engineering/Market rate analysis. A component of 15% on the cost of material (actual purchase cost / market price without any wastage) and labour will be considered as tenderers profit and other overheads.

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11. The Tax invoice and the abstract of the bill should be submitted strictly as per the approved format of UTIITSL.
12. The bill should be attached with all necessary measurements, sketches, joint measurements (if any).

F. Escalation :

1. *No escalation* in rate shall be paid for the works carried out.
2. No claim on account of fluctuation of rates of material and labour will be entertained during the course of work – (from the date of acceptance of the Tender till issue of completion certificate).

G. Defect Liability Period :

1. Defect Liability Period as per the terms of the contract is *12 months* from the date of virtual completion of the work. The work will be considered as virtually completed only when the tenderer completes the entire work as per the specification and joint inspection of work by the Engineer-in-charge and tenderer.
2. The *Security Deposit* will be refunded only after the defect liability period of *12 months* and rectification of the defects occurred whether pointed out in inviting or not. It will be the duty of the contractor to inspect the site for defects and rectify the defects within the defect liability period.
3. During the course of Defect Liability Period the tenderer has to rectify all the defects, if any, noticed free of charge.
4. In case the tenderer fails to attend the rectification work within 7 days of reporting the same in writing, UTIITSL will have the liberty to carry out the said work through some other contractor at the cost & risk of the tenderer. Such expenditure incurred to the client will be recovered from the Security Deposit. In case any expenditure incurred is more than the Security Deposit, the tenderer should pay the difference that may fall short.
5. While carrying out the rectification work, the tenderer should ensure that the surroundings should be protected against any possible damage. In case of any damage, the same should be made good by the tenderer.

H Statutory obligations to be followed:

1. The tenderer should ensure adherence of all statutory requirements under the State and Central Rules in force and other local bodies for smooth and timely completion without any additional cost.
2. The tenderer shall comply with the provisions of all the rules and regulation in respect of labours engaged at site (such as Contract Labour {Regulation & Abolition} Act, 1970, Minimum Wages Act, Apprentice Act and all other labour laws as may be enforced from time to time by the Government Authorities) for execution of work, procurement of material for completion of the entire project. UTIITSL shall not be held responsible for any penalty on failure of any of the labour regulations or on failure of any compliance of any rule in force.

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3. The tenderer shall strictly comply with the provision of Sales Tax (both State & Central), Excise Duty, etc. All the duties / taxes with respect to the work should be borne and paid by the tenderer himself. UTIITSL shall not be responsible for any payment/ penalty on this account at any stage.
4. The goods are manufactured at the tenderers office / site, the tenderer has to pay Central Excise and he has to produce Excise Invoice Copy for removal of goods from the manufacturing site. In case the goods are manufactured or produced at the site then Excise Invoice showing that the Central Excise has been paid should be submitted to UTIITSL.
5. The tenderer should submit a statement confirming that all duties / taxes of every nature covered under the contract have been paid and the tenderer shall indemnify the UTIITSL against all claims in that behalf.
6. The tenderer should ensure adherence of all the requirements under the State and Central Rules in force.
7. The tenderers should submit an affidavit / Declaration on payment of Central Excise as per the enclosed format.
8. The tenderer should also submit when required, a copy of the declaration filed with the Central Excise for the last financial year.
9. The tenderers are required to take *Contractor's All Risk insurance policies* (CAR Policies) with respect to the work within one week from the receipt of the work order and the workmen with an approved Indian Insurance Company in the joint name of the CLIENT and the Tenderer from the day of commencement of work till the defect liability period.
10. The value of the work to be insured would be 125% of the contract value.
11. The CAR policies should have additional coverage under 3rd party liabilities and maintenance period. The liabilities should be One Lakh Rupees per accident and the number of accidents should be infinity. The maintenance period shall be the defect liability period as per the terms of the contract. The photocopies of the premium receipt and the policies should be submitted to UTIITSL.
12. The tenderer has also to insure their workers under Workman's compensation Act- 1923.
13. UTIITSL will have the right to protect its interest either by taking insurance directly or by any action that may deem fit on account of the tenderer and recover the same from the tenderer incase the tenderer fail to do so.

H. Responsibilities of the tenderer

1. The tenderer should enter into an agreement as per the articles of agreement on stamp paper attached with this notice within 7 days of issue of acceptance of the tender.
2. The tenderer shall not sublet the work without written approval from UTIITSL.
3. The tenderer should co-ordinate with all the other contractors for execution of the project.
4. The tenderer should set out the layout at site before commencement of work and obtain approval to the same from UTIITSL.

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5. The contractor should arrange for sufficient light & power point required for entire project at his cost.
 6. The tenderer should clear the site within 7 days of virtual completion of work of all material not paid for.
 7. The tenderer should submit the schedule and bar chart of work before commencement of the work within 7 days of receipt of work order.
 8. The tenderer should take adequate precaution against fire hazard at site. The tenderer should ensure that all fire safety measures are taken during execution and that the work carried out is as per the fire safety norms of the local Fire office.
 9. The tenderer should arrange scaffoldings / ladders for proper execution of work, also to ensure safety of the workers as per the relevant provisions of the law.
 10. The tenderer should submit rate analysis for the extra/deviated items of work before commencement of the work.
 11. The tenderer should submit samples of the material proposed to be used for the approval of UTIITSL.
 12. The tenderer should prepare mock-up of the items for the approval of the UTIITSL and as per the advice of UTIITSL, the contractor has to modify the mock-up samples till it meets with the approval of the UTIITSL. The expenditure that may be incurred for making the mock-up samples should be included in the respective items of work.
 13. In case the tenderer is a partnership firm, any change in the constitution of the firm shall take place only with the prior approval of UTIITSL during the contract period.
 14. The tenderer should submit shop drawings for all the items for the approval of UTIITSL before execution of each item of work.
 15. The tenderer should remove the rejected work / materials immediately on receipt of instruction to do so.
 16. The tenderer has to ensure safety of the premises and the work till handing over of the same to UTIITSL.
 17. All disputes/ differences, if any, arising between the parties out of or relating to the works, meaning or operation or effect of this Contract or the breach thereof will be settled by two Arbitrators, one each appointed by the tenderer and UTIITSL in accordance with the rules of Arbitration of the Indian Council of Arbitration and the award made in pursuance thereof shall be binding on both the parties.
- The special conditions annexed with this notice has to be strictly followed.
 - This notice shall form part of the contract.

Contractor's Signature

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UTI Infrastructure Technology And Services Ltd.

SUMMARY	
Time of Completion	30 days from the date of commencement of work
Date of Commencement of work	Within 3 days from the date of issue of work order.
Liquidated damages	2 % of the total final certified value per week subject to the maximum of 10 % of the final certified value.
Minimum Value of work for interim certificate	Rs.3,00,000/-
Validity of the offer	60 days from the date of opening the tender.
Security Deposit (Retention money)	10 % of total value of work done, out of which, 50% will be released at the time of settlement of final bill.
Sales Tax, Excise duty, Royalty, Octroi, Work contract tax or any other statutory levies / Taxes / Cess.	To be entirely borne by the Contractor. The rate/ amount quoted shall be inclusive of all the taxes, VAT, duties and levies valid for the entire contract period. The rates to be all-inclusive.
Insurance policy	CAR policy with value of 125% of the contract value Third Party Insurance – Rs.1 Lac per accident and no. of accidents infinite.
Defects Liability Period	12 (Twelve) months from the date of virtual completion / handing over.
Terms of Payment	1. No advance . 2. Final Bill settlement within 30 days from the date of proper submission of all required documents and joint verification of measurements at site.
Deductions	1. Income Tax at source as per Income Tax Rules Sales Tax / Works Contract Tax/ Commercial Tax as applicable in the statement. 2. Cess applicable as per the local rules 3. Any other Levy/Cess/Tax to be deducted at source by law.
Extra / Additional work	15% of the cost of material and labour towards overheads and profit

I / We hereby agree and accept the above terms and conditions.

(Seal)
For (Name and address of the Contractor)

Signature of the Tenderer
For (Name of the Contractor and Designation)

Contractor's Signature

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Annexure-I

(On Rs.100/- non-judicial stamp paper by the successful bidder)

From : The Contractor Name and Full address

To : UTI Infrastructure And Services Limited.

Dear Sirs,

We refer to the tender dated _____ for External works at the office premises of UTI at UTI Tower, Bandra Kurla Complex, Bandra (E), Mumbai – 51.

We hereby confirm that we have complied with all formalities in the performance of our Contract for the supply of goods and services under all statutes governing the same, Central, State or Local. We further confirm that we have paid all taxes and duties including sales tax and excise duty in respect of the goods and services supplied to you and undertake to be responsible for the same.

We agree to indemnify and keep you indemnified against any claim or demand and all loss, costs, charges and expenses incurred or suffered by you as a result of any claim being made by any person in respect of our obligation under the said tender for payment of taxes, duties or otherwise.

Yours truly,

Date : _____

**SIGNATURE OF CONTRACTOR
WITH RUBBER STAMP**

Contractor's Signature

Seal

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Annexure - II

(On Rs.100/- non-judicial stamp paper by the successful bidder)

From : The Contractor Name and Full address

To : UTI Infrastructure Technology And Services Limited.

Dear Sirs,

We / I refer to the tender dated _____ for supply of goods and services at the office premises of UTI at UTI Tower, Bandra Kurla Complex, Bandra (E), Mumbai – 51. We advise that, we are covered under the exemption limit prescribed by the Central Excise Act 1944 and no Excise is payable by us / me on the goods and services supplied to you. We / I further confirm that we / I have complied with all the formalities in the performance of our contract for the supply of goods and services and under all statues governing the same, Central, State or local.

We undertake that if any taxes and duties including sale tax and Excise duty in respect of goods and services supplied to you by us / me is payable, the responsibility of paying the same shall be our.

We agree to Indemnify and keep you Indemnified against any claim or demand and all loss, cost, charges and expenses incurred and suffered by you as a result of any claim being made by any person in respect of our / my obligation under the said tender / contract for payment of taxes, duties or otherwise.

Yours truly,

Date : _____

**SIGNATURE OF TENDERER
WITH RUBBER STAMP**

Contractor's Signature

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ARTICLES OF AGREEMENT

(On Rs.100/- non-judicial stamp paper by the successful bidder)

ARTICLES OF AGREEMENT made at Mumbai this ____ day of _____, 2011 between UTI Infrastructure Technology And Services Limited, having its Registered Office at Plot No. 3, sector11, CBD Belapur, Navi Mumbai – 400 614 (hereinafter called the ‘Consultant’ of the one part) and _____ (name and address of the contractor) (hereinafter called the ‘Contractor’ of the other part).

WHEREAS the consultant is desirous of carrying External Light Works at the office premises of UTI at UTI Tower, Bandra Kurla Complex, Bandra (E), Mumbai – 51, hereinafter called ‘The Work’, and has prepared drawings/specifications the Schedule of Quantities.

AND WHEREAS the contractor has agreed to execute upon and subject to the conditions and instructions set forth herein (hereinafter referred to as the ‘the said conditions’) the works shown upon the said drawings and/or described in the said specifications and included in the said Abstract Schedule of Quantities at the item rates therein set forth amounting to the contract sum of Rs. _____/- (Rupees _____ only) hereinafter referred to as ‘the said contract amount’.

NOW IT IS HEREBY AGREED AS FOLLOWS :

1. In consideration of the said Contract amount to be paid at the times and in the manner set forth in the said conditions, the Contractor shall upon and subject to the said Conditions execute and complete the works shown upon the said Drawings or described in the Specifications and / or the priced Schedule of Quantities.
2. UTI shall pay the Contractor the said contract amount or such other sum as shall become payable at the times and in the manner hereinafter specified in the said conditions.
1. The said conditions and appendices thereto shall be read and construed as forming part of this Agreement, and the parties hereto shall respectively abide by and submit themselves to the conditions and perform the agreement on their part respectively in such conditions contained.
2. All disputes arising out of or in any way connected with this Agreement shall be deemed to have arisen in Mumbai and only the Courts in Mumbai, shall have jurisdiction to determine the same.
3. This Contract comprises:
 - (i) Tender documents serial pages _____ to _____.
 - (ii) Subsequent correspondence:
 - (a) Letter no. - _____
6. Only _____ (_____) alterations have been made in these documents and as evidence that these alterations were made before the execution of Contract Agreement, they have been initialed by the Contractor and The Company Secretary /

Contractor’s Signature

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official otherwise designated by Chief Executive Officer of UTI Infrastructure Technology And Services Limited, the said officer is hereby authorised to sign and initial the documents on behalf of the **UTI Infrastructure Technology And Services Limited**, the document forming part of this contract.

7. IN WITNESS WHEREOF THE official seal of the UTI Infrastructure Technology And Services Limited, was thereto affixed on its behalf by The Company Secretary /official otherwise designated by Chief Executive Officer and the Contractor/s has / have signed this Agreement on the dates respectively mentioned against their signatures in the presence of the following witnesses.

Signed by the Contractor:

Signature: _____

Date:

In the presence of :

Signature: _____

Name: _____

Address: _____

Date:

For and on behalf of
UTI Infrastructure Technology And Services Ltd.

Signed by -----

Name: _____

Address: _____

Date:

In Presence of:

Signature: _____

Name: _____

Address: _____

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Special conditions of the contract

1. The wood to be used should have similar / uniform grains and should be totally free from white portions, decay, knots etc.
2. The measurements indicated in the drawings are approximate and may vary as per the site conditions. UTIITSL's interpretation of the design and the specifications mentioned in the entire document shall be final and without appeal. In case of Errors or inconsistency, if discovered in the drawing and specifications, UTIITSL's interpretation shall be final and without appeal.
3. The contractor shall submit the Bar Chart & PERT chart before commencement of work and the progress chart during the course of work.
4. For the design and other details mentioned in the entire document UTIITSL alone has the patent right.
5. The contractor shall take the prior approval from UTIITSL for subletting the job even if the same is to a specialized agency.
6. In case UTIITSL rejects a particular work the tenderer shall remove the same within two days and no payment shall be made for such work.
7. The Contractor has to take all safety measures with regard to the workmen employed as per relevant laws and good engineering practices at site and safety measures against the fire hazard.
8. The contractor has to make necessary arrangement for lighting at the site.
9. The contractor has to carry out the job strictly as per specification spelt out in the bill of quantities, the drawings, instructions that may be issued by the Engineer-in-charge and the specification of the Bureau of Indian Standards, National Building Code etc.
10. In case of any discrepancy between the specifications and the drawings, the details mentioned in the specifications / Bill of quantities may be taken as final.
11. The work shall be carried out on holidays with causing any disturbance on office work / taking shutdown in power supply.

Contractor's Signature

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UTI Infrastructure And Services Ltd.

PREAMBLE TO THE BILL OF QUANTITIES

The work proposed is to be carried out at the office premises of UTI AMC Ltd in the Premises at UTI Tower, Bandra-Kurla Complex, Bandra(E)Mumbai. The premises is proposed to be provided with Lighting Fixtures and Electrical Cabling for external Illumination . The quality of work proposed should have *the best* workmanship. The contractor should ensure that only the first quality materials mentioned in the list of material is purchased for the project.

1. The work should be carried out in such a way that the structure is not disturbed.
2. Any difference / discrepancies in the specification should be clarified with the Engineer in charge before submitting the tender. The Engineer in charge will have the liberty to modify the specification to a reasonable limit to suit the basic concept during the course of work; the tenderer should carry out such work with out any extra cost.
3. In case of any major modification such items will be considered as an extra items. Payment for such items will be paid based on the Engineering rate / Market rate analysis. **15% of the total cost of material and labour** will be considered as **tenderer's profit**.
4. The contractor should co-ordinate with the other contractors employed at the site for smooth flow of work.

Contractor's Signature

Seal

UTI Infrastructure Technology And Services Ltd.

LIST OF MATERIALS OF APPROVED BRAND AND/OR MANUFACTURE – ELECTRICAL	
ALL MATERIAL USED MUST HAVE ISI & FIA APPROVED	
1.	Rigid PVC Conduit : Medium Gauge wall thickness ISI & FIA approved & manufactured from virgin material Precision, BEC
2.	Accessories for conduit : Same make as sr. no. 1 above.
3.	Copper Conductor PVC coated wire (Flexible) (As per IS:694-1977) : Finolex (FRLS)
4.	Main Switch fuse upto 63 Amps - A.C. 23 duty : L&T
5.	Above 63 Amps-A.C. 23 duty : L&T
6.	HRC Fuses : L&T
7.	MCBs : Legarnd,
8.	Distribution boards : Legarnd
9.	Rewirable Porcelain Fuse : CPL, KEW.
10.	Telephone wires : Delton, Finolex as per ITD S/WS-113 B
11.	PVC tape : Steel grip.
12.	Compound : Shalimar No. 6
13.	Main Cables down stream up to 35 sq.mm. : PVC armoured cable For 1.1 KV as per ISI 1554. Polycab make
14.	Branched Cable downstream from 35 sq.mm. : Polycab make
15.	Glands : Comet/ Comex
16.	Cable Lugs : Dowells, 3-D.
17.	Metal Clad Plugs : MDS/Crompton
18.	Switch Plate : Decolam Hylam sheet 3.0 mm thick. OR Sintex SMC Sheets
19.	Connectors/ Indicator : Technic, Mimic (Static LED type), Technoplast, Porcelain
20.	Button holder, Angle holder, ceiling rose : Anchor, Precision
21.	M.S. Conduit - ISI marked : BEC
22.	M.S. Boxes (Junction Box) : Fabricated out of 16 gauge continuously welded (sample to be approved)
23.	ELCB : LEGRAND
24.	A.C.B. Drawout type (LT) : L&T
25.	Telephone tag block : Chrono India Ltd.
26.	Capacitor : L&T / Crompton Greaves/Datar/Siemens
28.	Relay : L&T
29.	MCCB : Legrand/ L&T
30.	Meter : Jaipur, / L&T

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31.	Light Fixture	:	Philips
32.	Ceiling Fans	:	Crompton / Orient / Bajaj
33.	Exhaust Fan	:	Crompton / Almonard with PVC body.
34.	Electronic call bell / timer	:	Anchor / Precision /MAX
35.	TV Cable	:	Finolex.
36.	Volt meter & Ammeter (Digital)	:	Meco, AE
37.	Current Transformer	:	AE, Kappa
38.	L. T. Panel	:	L&T or fabricated by CPRI approved fabricator

NOTE :-

- **Wherever more than one make are indicated, the contractor should use the material indicated first. UTITSL will permit to use the material indicated 2nd and hereafter only if the material indicated 1st is not available and / or the same is not suitable (colour, size, shape, texture) as per the site condition.**
- **In case the tenderer wish to verify the detailed specification of materials, workmanship etc. the same may be verified from the office of UTITSL before submission of the tender.**
- **Whether a product is equivalent or not, will be decided by the Engineer-in-Charge only.**

Contractor's Signature

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UTI Infrastructure And Services Ltd.

SPECIFICATIONS

General

A: MATERIALS

Materials shall be of the best-approved quality obtainable / available and they shall comply to the respective Bureau of Indian Standard Specifications.

Samples of all materials shall be got approved before placing order and the approved sample shall be deposited with UTIITSL.

In case of non-availability of materials in metric sizes, the nearest higher size in FPS units shall be provided with the prior approval of UTIITSL for which neither extra will be paid nor shall any rebate be recovered.

If directed, materials shall be tested in any approved Testing Laboratory and the Test certificate in original shall be submitted to UTIITSL and the entire charges of testing including charges for repeated tests if ordered shall be borne by the Tenderer.

It shall be obligatory for the tenderer to furnish Certificate, if demanded by UTIITSL from the manufacturer or the material supplier that, the work has been carried out using their material and as per their recommendation.

All materials supplied by or through UTIITSL OR other specialized firms if any, shall be properly stored and the tenderer shall be responsible for its safe custody until they are required on the works/until the completion of work.

Unless otherwise shown on the drawings or mentioned in the Schedule of Quantities or Specification the quality of materials, workmanship, dimensions etc., shall be as specified here-in-under.

All equipment and facilities for carrying out field tests on materials shall be provided by the tenderer without any extra cost.

Contractor's Signature

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TECHNICAL SPECIFICATIONS FOR CIRCUIT BREAKERS, PANEL BOARDS AND DISTRIBUTION BOARDS– (ELECTRICAL)

1.0 SCOPE :

- 1.1 The scope of work shall cover the installation, testing and commissioning of all power panels, incorporating circuit breakers, fuse units, busbars, interconnections, earthing etc., meeting the requirements shown in equipment schedule and the drawings, with good engineering practices.

1.1 PANEL BOARDS:

- 1.2 All the panels shall consist of ammeter voltmeter of adequate ranges and indicating lamps.
- 1.3 Bus bar chamber shall have removable end covers and bars shall have bolt holes provided at both ends to enable future extension of panels on either side.
- 1.4 Bus bar chamber shall be completely compartmentalized openings made at top and bottom for switches shall be blocked with bakelite sheets and bushed openings provided for interconnecting leads.
- 1.5 Testing and Inspection:
- 1.6 All switch boards shall be subject to factory inspection before finishing and dispatch, unless inspection is waived by Engineer-in-Charge
- 1.7 Certificates for all routine and type tests for circuits breakers in accordance with the I.S.S. 2516 shall be furnished. In addition, all panels shall be meggered phase to phase to neutral using and 1.5 mega ohms between phase and 1.5 mega ohms between phase and neutral.
- 1.8 All meters and replays shall be calibrated and tested at site by contractor before commissioning through secondary therewith shall withstand 2000 V for one minute.
- 1.9 All field tests shall be witnessed by Engineer-in-charge and recorded.

1.0 CIRCUIT BREAKERS :

Circuit breakers shall be air relevant break horizontal draw out type fully interlocked and meeting the requirements of relevant IS:2516 or BS:3659. Breakers shall be rated for a medium voltage of 600 V and rated full load amperes as indicated on drawings. Breaker shall be capable of making and breaking system short circuits specified.

- 3.0 Breakers shall be, unless specified otherwise, manually operated, complete with front-of the panel operating handle, isolating plug with safety shutters, mechanical ON/OFF indicator, silver plated arching and main contacts, arc chutes, trip free operation. Breakers shall be capable of being raked out into 'Testing', 'Isolator' and 'Maintenance' positions and kept locked in any position. Breakers for remote operation shall be motor operated spring charged.

4.0 SWITCH FUSE UNITS & DISCONNECTS:

- 4.1 Switch fuse units shall have quick-make, quick-break silver-plated preferably double break contacts with operating mechanism suitable for rotary operation in the case of cubicle mounting. All switches shall be rated according to the equipment schedule or drawings and shall withstand

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the system prospective fault current let through. Cam operated rotary switches with adequate terminal adapters upto 25 A are acceptable but for all higher rating switch fuse units shall be heavy duty type conforming to IS 4047. All switches should be suitable for AC 23 duty.

- 4.2 Fuses shall be HRC cartridge type conforming to IS:2208 with a breaking capacity corresponding to system fault level. Fuses shall be link type with visible indication. Screw type diazed fuses are not acceptable for any ratings.

5.0 INSTRUMENT TRANSFORMERS, METERS & RELAYS :

- 5.1 Ammeters and Voltmeters shall have moving iron spring controlled dead-beat elements in square bezel flush type cases 144 mm. in size and suitable for switch board mounting. Meters shall conform to BS:89 and have grade 'A' accuracy. Scale ranges shall meet with the requirements or as indicated on the drawing or in the Schedule of quantities.
- 5.2 Energy meters shall be two-element switch board mounting type suitable for unbalanced loads. In case of two incoming feeders, a summing C.T shall be provided with the meter. Meters shall conform to BS:37. The energy meters for DG Set & Transformers shall be calibrated and got certified by the respective State Electricity Board. All tripping may be through combination thermal and magnetic releases or IDMT releases as specified.

6.0 CUBICLE BOARDS :

- 6.1 All boards shall be combination of 14 & 16 SWG sheet steel, free standing, extensible, totally enclosed, dust tight, vermin-proof cubicle, flush dead front and modular construction suitable for 3 phase 415 V, 4 wire 50 Hertz system. All boards shall be accessible from the front for the maintenance of switch fuses, bus bars, cable termination, meters etc. Cables shall be capable of entering the board both from top as well as bottom. All panels shall be machine pressed with punched openings for meters etc. All sheet steel shall be rust inhibited through a process of degreasing, acid pickling, phosphating etc. The panels shall be finished with powder coating of appropriate micron rating and of colour approved by the Engineer-in-charge. Engraved plastic labels shall be provided indicating the feeder details, and capacity and danger signs.
- 6.2 The boards shall accommodate air insulated bus bars, air circuit breakers, switch fuse units with HRC fuses, starters, necessary meters, relays, contactors etc. as required and arranged in suitable tiers.
- 6.3 The switchboard shall be fully compartmentalized in vertical tiers housing the feeder switches in totally enclosed department. Each compartment shall be self sufficient with switch unit, fuses, contactors, relays, indicating lamps and an interlocked door with facility for pad-locking. Each feeder must terminate in an independent labeled terminal block. Strip type terminal block accommodating several feeders together is not acceptable.

Pressure clamp type terminals suitable for relevant aluminum wires may be used upto switches of 25 A and cable lugs for higher ratings. All termination shall be shrouded in an approved manner. The entire enclosure shall meet with relevant IS:2147/1962. Feeder connections shall be of solid

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insulated copper/aluminum wires or strips with bimetallic clamps wherever required. Internal wiring, bus bar markings etc. shall conform to IS:375/1963. Internal wiring shall have terminal ferrules. Main switch should be at an easily accessible height and the highest switch operating handle should not be over 1.75 m. from floor level. Cable glands need not form part of the switch board as the cost of glands will form part of the cable termination.

6.4 The panel shall be fabricated in enclosure of not more than 1 mt. The panel shall be assembled at site.

7.0 BUSBARS :

7.1 Bus bars shall be three phase and neutral and of Tinned Electrolytic copper/ aluminum or aluminum as described in the Schedule of work. Alloy rated for a temperature rise of 30°C over the ambient temperature specified, based on insulated conductor rating (IS:8084-1976). Neutral bars may be of one half the size of the phase bars. The main horizontal bus bars shall be of uniform cross section and rated in accordance with the incoming switch. The vertical bus bars for the feeder columns may be rated at 75% of aggregate feeder capacity and shall be uniform in size. Bus bars and interconnections shall be taped with PVC colour coded tape to prevent bar-to-bar accidental shorts. Each bus bar shall be directly and easily accessible on removal of the front cover. Bus bars shall be totally enclosed, shrouded and supported on non-hygroscopic insulator blocks to withstand thermal and dynamic overloads during system short circuits. An earth bus of size 50% of the phase subject to the following maximum and minimum shall be provided. Individual switch components shall be connected with the earth bus through copper strip size of connecting wire being as above. All wire connections to bars shall be through lugs, bolts and nuts and spring washers.

	Copper	Aluminum	Galvanized Steel
Minimum	6.5 Sq.mm.	10 Sq.mm	20 Sq.mm
Maximum	65 sq. mm.	120 sq.mm.	200 sq mm.

Individual switch components shall be connected with the earth bus through copper wire /strips, size of connecting wire being as above. All wire connections to bus bars shall be through lugs, bolts and nuts and spring washers.

The minimum size of earth bar in a board shall however be 25 x 3 Al. or equivalent.

8.0 ISOLATORS :

8.1 Isolators shall be fixed on wall on self-supported angle iron framework as required and mounted as near to the motor as possible. Where several motors are installed, isolators if required shall be provided at a central location on a common framework.

8.2 Painting, earthing and labels shall be provided, as generally, indicating for MV Switch gear and as shown on drawings.

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9.0 EARTHING:

9.1 All switch panels shall be provided with an earth bar as specified. Earthing of the switch boards shall be through the equipment earthing system provided in the building. All meters shall be calibrated and tested through secondary injection tests. All field tests shall be witnessed by Engineer-in-charge and recorded.

10.0 INSTALLATION:

10.1 All panels shall be supported on MS channels incorporated in the panel during the fabrication. All such supports shall be prime coated with two finish coats. After completion of the work all panels shall be touched up for the painting, if damaged.

10.2 All panels shall be megged phase and to neutral using a 1000 V. meggar with all outgoing feeders in closed position. The meggar value should not be less than 2.5 megohms between phases and 1.5 megohms between phases and neutral.

10.3 Fabrication drawings of all panels shall be approved by the Engineer-in-charge before fabrication.

11.0 TESTING & INSPECTION:

11.1 All switchboards shall be factory inspected before finishing and dispatch.

11.2 Certificate for all routine and type tests for circuit breakers in accordance with the IS:2516- 1963 shall be furnished. In addition, all panels shall be megged, phase to phase, and phase to neutral, using a 1000 V meggar with all switch gear in closed position. The meggar value should not be less than 2.5 megohms between phases and 1.5 megohms between phase and neutral.

11.3 Earthing of the panels from the equipment earthing system will be paid for unit rates separately as specified under earthing or as specified in BOQ.

12.0 MODE OF MEASUREMENT :

Panels, isolators will each be considered as one unit for the purposed of measurement and shall include the following :

- i) Incoming and Outgoing feeder terminals.
- ii) Interconnections and controls and instrument wiring with necessary protective fuses.
- iii) Meters, Relays, Indicating lamps, CT's control fuses etc.
- iv) Supporting structure, sheet steel enclosure.
- v) Installation and testing.

Earthing of the Panel/Isolator from the equipment earthing system will be measured separately at the said unit rates.

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DISTRIBUTION BOARDS

1.0 SCOPE :

- 1.1 The scope of work shall cover the supply, installation, testing and commissioning of lighting and power distribution boards. Associated minor civil work required for the erection of the DB's are also included in the scope of this contract.

2.0 DISTRIBUTION BOARDS:

Distribution boards along with the controlling MCB's/Fuse or Isolator as shown shall be fixed in an M.S. Box with hinged lockable door suitable for recessed mounting in wall. Distribution boards shall be made of 14 SWG steel sheet duly rust inhibited through a process of de-greasing, acid pickling, phosphating and powder coated to an approved colour of adequate micron rating duly approved by the Engineer-in-charge.

Three phase boards shall have phase barriers and a wire channel on three sides generally as shown on drawings. Neutral bars shall be solid tinned copper bars with tapped holes and chase headed screws. For 3 phase DB's, 3 mm. independent neutral bars shall be provided. All DB's shall be internally pre-wired using copper insulated PVC wires brought to a terminal strip of appropriate rating for outgoing feeders.

- 3.0 Conduit knockouts shall be provided as required/shown on drawings and the entire board shall be rendered dust and vermin proof with necessary sealing gaskets. The top and bottom side of DB should be detachable.
- 3.1 MCB's shall have quick make and break non-welding self-wiping silver alloy contacts for 9 KA/3 KA short circuit both on the manual and automatic operation. Each pole of the breaker shall be provided with inverse time thermal over load and instantaneous over current tripping elements, with trip-free mechanism. In case of multi-pole breakers, the tripping must be on all the poles and operating handle shall be common. Breakers must conform to BS 3871 with facility for locking in OFF position. Pressure clamp terminals for stranded/solid conductor insertion are acceptable upto 4 sq.mm. aluminum or 2.5 sq.mm. copper and for higher ratings, the terminals shall be suitably shrouded. Wherever MCB isolators are specified they are without the tripping elements.
- 3.2 Fuses shall be HRC link type re-wireable with necessary fuse carriers and with rating of not less than 25 MVA. Bottle type fuses are not acceptable. Fuse carrier terminals shall be suitably shrouded. Re-wireable fuse carriers shall be porcelain. HRC fuses for motor duty should be time lag type.
- 3.3 Distribution boards shall have HRC/re-wireable fuses as shown on the schedule and drawings. Board shall meet with the requirements of IS 2675 and marking arrangement of busbars shall be in accordance with I.S. standards.
Bus bars shall be suitable for the incoming switch rating and sized for a temperature rise of 35° C over the ambient. Each board shall have two separate earthing terminals. Circuit diagram indicating the load distribution shall be pasted on the inside of the DB. One earthing terminal for

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single phase and two terminals for 3 phase DB's shall be provided with an earth strip connecting the studs and the outgoing ECU earth bar.

3.4 In the case of MCB distribution boards, the backup fuses wherever shown shall be not less than 63 A with a delayed characteristic and a minimum pre-arcing time of 0.5 sec. at 9 KA/3 KA fault current.

3.5 All outgoing feeders shall terminate on a terminal strip which in turn is interconnected to the MCB/Fuse base by means of insulated single conductor copper wires as follows :

Upto 16A	2.5 sq.mm.	40 A	10 sq.mm.
25 A	4.0 sq.mm.	63 A	16 sq.mm.
32 A	6.0 sq.mm.		

3.6 Each DB shall have indicating lamps preferably neon type denoting power availability in the board after the switch indicating lamps shall be complete with fuses.

4.0 RCA/ MCB :

4.1 The RCA should suffices all the requirements of IS as per code IS - 12640 - 1988. The RCA should be current operated and not on line voltage.

The RCA should ensure mainly the following functions.

- Measurement of the fault current value.
- Comparison of the fault current with a reference value.

4.2 The RCA should have a toroidal transformer witch has the main conductors of primary (P - N) which check the sum of the current close to zero.

4.3 All metal parts should be inherently resistant to corrosion and treated to make them corrosion resistant.

4.4 It should be truly current operated.

4.5 It should operate on core balance toroidal transformer.

4.6 It's accuracy should be $\pm 5\%$.

4.7 It should operate even in case of neutral failure.

4.8 It should trip at a present leakage current within 30 M.S.

4.9 It's enclosure should be as per IP 30.

4.10 It's mechanical operation life should be more than 20,000 operations.

4.11 It should provide full protection as envisaged by IE rules - 61-A, 71 - ee, 73 - ee, 1985 and also rule 50 of IE rule 1956.

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- 4.12 It should conform to all national and international standards like IS 8828 : 1993, IS 12640 - 1988, BS 4293 - 1983, CEE 27 (International commission Rules for the approved of electrical equipment).

MEDIUM VOLTAGE CABLING

1.0 SCOPE :

- 1.1 The scope of work shall cover supply, laying, connecting, testing and commissioning of low and medium voltage power and control cabling.

2.0 CABLES :

All cables shall be 1100 Volt grade PVC insulated, sheathed with or without steel armoring as specified and with an outer PVC protective sheath. Cables shall have high conductivity stranded aluminum or copper conductors and cores colour coded to the Indian Standards.

- 3.0 All cables shall be new without any kind or visible damage. The manufacturers name, insulating material, conductor size and voltage class shall be marked on the surface of the cable at every 600 mm centers.

4.0 INSTALLATION

- 4.1 Cables shall be laid in the routes marked in the drawings. Where the route is not marked, the contractor shall mark it out on the drawings and also on the site and obtain the approval of the Engineer-in-Charge before laying the cable. Procurement of cables shall be on the basis of actual site measurements and the quantities shown in the schedule of work shall be regarded as a guide only.
- 4.2 Cables, running indoors shall be laid on walls, ceiling, inside shafts or trenches. Single cables laid shall be fixed directly to walls or ceiling and supported at not more than 500 mm. Where number of cables are run, necessary perforated cable trays shall be provided wherever shown. Perforated trays shall be mild steel or Aluminum as specified in the schedule of work and supported on mild steel frame work as shown on drawings or as approved. Cables laid in built-up trenches shall be on steel supports. Plastic identification tags shall be provided at every 30 m.
- 4.3 Cables shall be bent to a radius not less than 12 (twelve) times the overall diameter of the cable or in accordance with the manufacturer's recommendations whichever is higher.
- 4.4 In the case of cables buried directly in ground, the cable route shall be parallel or perpendicular to roadways, walls etc. Cables shall be laid on an excavated, graded trench, over a sand or soft earth cushion to provide protection against abrasion. Cables shall be protected with brick or cement tiles on all the three sides as shown on drawings. Width of excavated trenches shall be as per drawings. Back fill over buried cables shall be with a minimum earth cover of 750 mm to 1000 mm. The cables shall be provided with cables markers at every 20 meters and at all loop points.

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- 4.5 The general arrangement of cable laying is shown on drawings or may be obtained from Engineer-in-Charge. All cables shall be full runs from panel to panel without any joints or splices. Cables shall be identified at end termination indicating the feeder number and the Panel/Distribution board from where it is being laid. Cable termination for conductors upto 4 sq.mm. may be insertion type and all higher sizes shall have tinned copper compression lugs. Cable termination shall have necessary brass glands. The end termination shall be insulated with a minimum of six half-lapped layers of PVC tape. Cable armoring shall be earthed at both ends.
- 4.6 In case of cables entering the buildings. It would be done duly only through pipes. The pipes shall be laid in slant position. So, that no rain water may enter the building. After the cables are tested. The pipes shall be sealed with M. seal & then tarpaulin shall be wrapped around the cable for making the entry of water light.
- 4.7 All cables shall be provided with stainless steel/Aluminum cable identification tags at a maximum distance of 10 m.

5.0 TESTING:

- 5.1 MV cables shall be tested upon installation with a 500 V Meggar and the following readings established:
- 1) Continuity on all phases.
 - 2) Insulation Resistance.
 - (a) between conductors.
 - (b) all conductors and ground.
- All test readings shall be recorded and shall form part of the completion documentation.

6.0 MODE OF MEASUREMENT :

- 6.1 Cables will be measured on the basis of a common rate per unit length indoor or outdoor and shall include the following :
- For cables laid indoors :
- i) Cables and clamps.
 - ii) Installation, commissioning and testing.
 - iii) Cable marking. **OR**
- for cable buried underground :
- i) Cables and protective bricks & tiles.
 - ii) Installation, commissioning & testing.
 - iii) Cable markers.
- 6.2 Cable trays/racks will be measured on the basis of unit length for individual sizes and shall include :
- i) Perforated trays on M.S framing ladder wall support or ceiling suspenders.
 - ii) Installation and painting in 2 coats of black bituminous paint.

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- 6.3 Each cable termination will be measured as one unit for payment. Certain cable sizes are grouped together and rates shall be furnished against each group. The item shall include the following :
- i) Cable glands, lugs, bolts, nuts.
 - ii) All jointing materials.
 - iii) Installations, testing and commissioning.
 - iv) Earthing the glands.
- 6.4 For cables buried under ground excavation shall be paid for, in addition, for the following per unit volume:
- i) Excavation and back filling.
 - ii) 6" Soft Earth Cushioning below and above cable.
 - iii) Bricks on all the three sides of cable as shown in drawing/instructed by the Engineer-in-Charge.

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UTI Infrastructure Technology And Services Ltd.

BILL OF QUANTITIES:

Note :

1. Rates to be quoted by the tenderers in the item rate tender in figures and words shall be accurately filled in, so that there is no discrepancy in the rates written in figure and in words. However, if a discrepancy is found between the rate written in figures and rate written in words then the rate which correspond with the amount worked out by the contractor shall be taken as correct.
2. Where the rate quoted by the tenderer in figures and in words tally but the amount is not worked out correctly, the rate quoted by the contractor will be taken as correct, not the amount.
3. If the amount of an item is not worked out by by the tenderer, it does not correspond with the rate written either figures or in words, then the rate quoted by the tenderer in words shall be taken as correct.

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A BOQ for External Lighting					
Sr. No.	Description	Unit	Qty	Rate	Amount
1.0	MEDIUM VOLTAGE DISTRIBUTION BOARD				
	Supply, Installation, connecting, testing & commissioning of following panel made up of 14SWG CRCA sheet totally enclosed, only front operated, vermin proof, water proof, cubical type, floor standing with MS frame suitable for 3 phase 415V 4 wire 50Hz system with provision for bottom cable entry . The busbar made up of tinned Cu with colour code and suitable spacing as per IE rule and as per the IS standard.				
1.1	SITC of water proof and weather proof Feeder pillar with following details. 250 A TPN MCCB as Incomer – 01No. 20A SP MCB- Outgoing-12 Nos. 25A SP MCB- Outgoing – 12 Nos. 32A SP MCB – Outgoing – 12 Nos. (12 MCB in each phase) 2nos. digital weekly programmable switch/timer Legrand make. 2 Nos. Contactors of suitable capacity one for gate light& Compound light and one for building illumination. Neutral link, connector strip, double door IP 65 protection, 1 no. combined digital meter to read current & voltage, with all necessary accessories with termination of	Nos.	01		
Mode of measurements : Counts. Units : Each (Rupees.....only)					
SUB TOTAL C/F TO SUMMARY SHEET					
2.0	MEDIUM VOLTAGE CABLES				
	Supply, laying, connection, testing and termination of heavy duty medium voltage cables as per Specification and IS PVC insulated, inner & outer PVC sheath stranded AL\CU conductor unless or				

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	otherwise specified. The cable shall be laid directly in ground at a depth of 800 mm including excavations protective brick covering and refilling the trench etc as required. While backfilling, the stones and other materials to be removed. The tiles removed carefully (without breaking and damaging) for making trench are to be reinstalled after backfilling of the trench). The existing cables are to be tested for reusing. New cables are to be for replacing damaged cables. The cable shall be laid in suitable size GI Pipe B Class while crossing the road.. The unit rate shall include: a) Delivery of the cable at site b) Shifting of cable from site store to place of installation. c) Supply and fixing of cable clamps, glands, brackets, supports etc. d) Earthing the glands and armoring with earthing clamp and jumper and also connecting to common earth bar.				
2.1	4 C X 6 Sq. mm. Cu armoured Cable 1.1 KV grade for external light fittings with termination and 2 nos. 8 SWG GI Earth continuity conductor	RMT	400		
Mode of measurements: Length to the nearest cms. Units : Running meter (Rupees.....only)					
2.2	3 C X 6 Sq. mm. Cu armoured Cable 1.1KV grade for external light fittings with termination. and 1 no 8 SWG GI Earth continuity conductor	RMT	400		
Mode of measurements: Length to the nearest cms. Units : Running meter (Rupees.....only)					
SUB TOTAL C/F TO SUMMARY SHEET					
3.0	LIGHT FIXTURES				
	Supply, Installation, assembling, connection, testing and commissioning of External light fittings/ PL light fixtures complete with suitable rating lamps, high power factor improving capacitor, VPI ballast, Starter and necessary accessories.				

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3.2	Supply, Installation, testing and commissioning of Phillips make MWF 331-1Xhpit400W A with 1Xhpit400W A light fixtures with IP65 protection and all necessary accessories including Lamp, gear box, tube, choke, igniter, mounting on floor on Existing concrete bed etc .	Nos.	11		
Mode of measurements: Counts. Units : Each (Rupees.....only)					
3.4	Supply, Installation, testing and commissioning of Phillips make MWF 331 with 1xHPIT 250W A light fixtures with IP65 protection and all necessary accessories including lamp gear box, tube, choke, igniter, mounting on floor on Existing concrete bed etc.	Nos.	12		
Mode of measurements : Counts. Units : Each (Rupees.....only)					
	Supply, Installation, testing and commissioning of Phillips make HWS360 1Xplc/2p18W GR with IP65 rotection and all necessary accessories including lamps gear box, tube, choke, igniter, mounting on floor on Existing concrete bed etc.	No	21		
3.5	Supply, Installation, testing and commissioning of Phillips make HLF 125 1xHPLN 400W with IP65 protection and all necessary accessories including gear box, tube, choke, igniter, mounting on floor on Existing concrete bed etc.	Nos.	05		
Mode of measurements: Counts. Units : Each (Rupees.....only)					
3.6	Supplying and erecting ISI mark, GI pipe pole, B class, 60mm dia. And 2.6mtr. Long (600mm bellow ground level) complete with MS base plate of size 300X300X6 mm continuously welded at the bottom of the pole. The pole shall have one no12mm dia and 60 mm long bolt welded to pole at a distance of 1.0mtrs from the pole bottom for	Nos.	09		

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	<p>fixing terminal box and earth connection respectively. The pole shall be painted with 2 coats of red oxide and two coats of black bituminous paint for the length embedded in ground and plinth and remaining portion painted with two coats of silver enameled paint with supplying and erecting FRP pole terminal boxes of size 150X100X100mm and 2.7mm thick with permanent grey colour and with 10 Amp, SP MCB, one for each luminaries, mounted on din rail channel, and with 4way, 20A, backlight connector strip with 3x1.5sqmm Cu flexible cable of suitable length from connector to light fitting. Box shall be water tight, dust and vermin proof, with hinged door and provided with lock and key and with arrangement for incoming and outgoing cables at the bottom of the box and outgoing wire leads at the rear side. The box to be provided with necessary fixing arrangement for erection on the pole with pole clams made from 40x3 mm galvanized Ms flat and with nuts, bolts and washers etc. compete. Box provided with earth terminal on inner and also on outer side for making earth connections.</p> <p>The pole should be fixed with cement concrete foundation including excavation for GI pipe poles with 350X350X600mm deep in 1:3:6cc using 20 to 25 mm stone metal and with plinth of 30cm dia. And 40cms in height and duly plastered with necessary curing and finishing and painted with white snowcem paint or as directed by Engineer in charge..</p>				
<p>Mode of measurements : Counts. Units : Each (Rupees.....only)</p>					
3.7	Supply, Installation, testing and commissioning of Phillips make HPS360 1XCDM-TD 70W GR light fixtures with Lamp and mounting base IP65 protection and all necessary accessories to be mounted	Nos.	09		

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	on 60mm dia pole.				
Mode of measurements: Counts. Units : Each (Rupees.....only)					
3.8	Supply, Installation, testing and commissioning of Phillips make HCS360 1Xplc/2P 18W GR with lamp 1xPL-C18W light fixtures with mounting base IP65 protection and all necessary accessories to be mounted on floor with proper mounting arrangements.	Nos.	17		
Mode of measurements: Counts. Units : Each (Rupees.....only)					
SUB TOTAL C/F TO SUMMARY SHEET					
4.0	Others				
4.1	Supply, Installation of 4way 10A porcelain connector to be fixed by removing existing PVC connector	Nos.	10		
Mode of measurements: Counts. Units : Each (Rupees.....only)					
4.2	Supply and installation of water proof junction boxes of size 100x100x50mm near gate for fixing the connectors.	Nos.	08		
Mode of measurements: Counts. Units : Each (Rupees.....only)					
4.3	Termination of existing incomer cable to new feeder pillar along with necessary glands, lugs and accessories.	Job.	01		
Mode of measurements: Counts. Units : Each (Rupees.....only)					
4.4	Removing of existing external tiles, making trench of 600mm deep and 200mm wide	RMT	100		

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	and refilling the earth ramming to ground level and finishing the same with matching tiles after laying the cables.				
Mode of measurements: Length to the nearest cms. Units : Running meter (Rupees.....only)					
SUB TOTAL C/F TO SUMMARY SHEET					
Total A :Rs. (Rupees.....only)					
B. Buy back of existing light fittings.					
1	2x400W halogen fittings Phillips	Nos.	10		
2	1x250W Halogen fittings Phillips	Nos.	10		
3	1x150W Halogen fittings Phillips	Nos.	05		
4	1x70W Gate light fitting	Nos.	02		
5	1x18W Bulkhead fitting	Nos.	12		
Total B :Rs. (Rupees.....only)					
Total A- B :Rs. (Rupees.....only)					

Signature of the Contractor

Date

Contractor's Signature

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Confirmation of Acceptance of Tender terms and conditions

(To be signed by the bidder and enclosed along with their offer in a separate envelope)

We have studied the terms and conditions of Tender Enquiry including General and Special terms and conditions, the specifications, lay-out drawings, Schedule of Quantities, Commercial terms and conditions, Approved Makes, etc.

We are accepting all terms and conditions of the Tender without any deviation.

Offer with any deviations from the Tender Enquiry are likely to be rejected.

We also understand that the order / s will be placed in the name of principals only and not in the name of their dealer/s. Our quotation is based on the above.

Date : _____

**SIGNATURE OF TENDERER
WITH RUBBER STAMP**

Contractor's Signature

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DECLARATION

I / We hereby declare that I / We have read and understood the Terms and Conditions of the contract, Specifications, Drawings, Schedule of Quantities etc. and hereby agree to abide by them. In token thereof, I / We have signed below certifying the same.

I / We hereby confirm that only the relevant entries asked for, have been made within the Tender documents issued to us. I / We also confirm that in the event of any entry in this Tender document other than the relevant entry or any additional or changed or deviated condition proposed by us shall make this Tender invalid.

Date : _____

**SIGNATURE OF TENDERER
WITH RUBBER STAMP**