

ODISHA POWER TRANSMISSION CORPORATION LIMITED

REGD OFFICE: JANAPATH, BHUBANESWAR-751022, PH- 0674- 2547185

OFFICE OF SR.GENERAL MANAGER(S&S), GROUND FLOOR, FINANCE BUILDING, BHOINAGAR, BHUBANESWAR

email: sto.cle.bbs@optcl.co.in

TENDER SPECIFICATION NO.- SR.GMS&S-36/2020-21

FOR

Rate Contract for Re-wiring & Earthing of quarters at OPTCL Colony-Bhoinagar / Chandrasekharpur / Mancheswar, PTC Chandaka and Office Buildings of OPTCL Hqrs., Bhubaneswar.

LAST DATE AND TIME OF RECIEPT OF TENDER PAPER
27.11.2020 UPTO 01:00PM

DATE OF OPENING OF TENDER PAPER
27.11.2020 at 4.00PM

COST OF TENDER PAPER
Rs.6,720/- (including @12% GST)

COST OF EMD
Rs.3,200/-



ODISHA POWER TRANSMISSION CORPORATION LIMITED

REGD OFFICE: JANAPATH, BHUBANESWAR-751022, PH- 0674- 2547185, Fax: 2540016 OFFICE OF SR.GENERAL MANAGER(S&S), GROUND FLOOR, FINANCE BUILDING, BHOINAGAR, BHUBANESWAR-22 email: sto.cle.bbs@optcl.co.in, website: www.optcl.co.in, cin: u401020R2004SGC007553

No. EMC- 109/2012(Part-III)/

dt. .11.2020

TENDER NOTICE NO.SRGM(S&S)- 36 / 2020-21

For and on behalf of Odisha Power Transmission Corporation Ltd., Sr.G.M. (S&S) invites sealed Tenders from reputed Electrical Contractors having GST registration, MV license from ELBO, Bhubaneswar and valid PAN for fixation of Rate Contract for Re-wiring & Earthing of quarters at OPTCL Colony — Bhoinagar / Chandrasekharpur / Mancheswar, PTC Chandaka and Office Buildings of OPTCL Hqrs., Bhubaneswar. **Tender papers can be downloaded from the OPTCL website** www.optcl.co.in from dt. 06.11.2020 to dt. 27.11.2020 upto 1.00PM. The tender shall be received up to 1.00PM on dt. 27.11.2020 and shall be opened on same day at 4.00PM. Interested tenderers may visit OPTCL's official website www.optcl.co.in for detail specifications.

OPTCL reserves the right to accept or reject the tender without assigning any reason thereof.

N.B.: All subsequent addendum / corrigendum to the tender shall be hosted in OPTCL's Official Website www.optcl.co.in only.

SR. GENERAL MANAGER [S&S]

CC to

- 1. CGM(O&M) / CGM(F)C&B,OPTCL for kind information.
- 2. GM, EHT Stores Division, OPTCL for information & necessary action.
- DGM(Telecom.), IT, OPTCL for information & necessary action. It is requested to upload the tender documents on OPTCL website for wide publication.

NOTICE INVITING TENDER



ODISHA POWER TRANSMISSION CORPORATION LTD JANPATH, BHUBANESWAR – 751 022,

TENDER NOTICE NO. SRGM(S&S)- 36 / 2020-21

For and on behalf of Odisha Power Transmission Corporation Ltd., Sr.G.M. (S&S) invites Tenders from reputed Electrical Contractors having GST registration, MV license from ELBO, Bhubaneswar and valid PAN for fixation of "Rate Contract for Re-wiring & Earthing of quarters at OPTCL Colony-Bhoinagar / Chandrasekharpur / Mancheswar, PTC Chandaka and Office Buildings - OPTCL Hqrs., Bhubaneswar". The sealed envelope should be superscribed as: "Rate Contract for Re-wiring & Earthing of quarters at OPTCL Colony-Bhoinagar / Chandrasekharpur / Mancheswar, PTC Chandaka and Office Buildings - OPTCL Hqrs., Bhubaneswar". Tender papers can be downloaded from the OPTCL website www.optcl.co.in w.e.f. dt.06.11.2020 to dt.27.11.2020 upto 1:00PM. The tender shall be received up to 1.00PM on dt. 27.11.2020 and shall be opened on same day at 4.00PM. Interested tenderers may visit OPTCL's official website www.optcl.co.in for detail specifications.

| SI. No | Tender Specification No. | Description of works. | Earnest Money Deposit (In Rs.) | Cost of Tender Document (In Rs.) | Last date of receipt of tender |
|-----------|--------------------------------|--|---|---|--------------------------------|
| 1. | G.M. (S&S)- /2019-20 | Rate Contract for Re-wiring & Earthing of quarters at OPTCL Colony-Bhoinagar/Chandrasekharpur/Mancheswar,PTCChandaka and Office Buildings - OPTCL Hqrs., Bhubaneswar | Rs.3,200/- | Rs.6,720/- (Inclusive of 12% GST) | 27.11.2020 at 1.00PM |

The tenderers who want to submit tender shall have to pay non-refundable amount of Rs.6,720/- (Rupees six thousand seven hundred twenty) only including GST @ 12% towards the cost of tender documents in the form of Demand draft/Pay order, drawn in favour of the "G. M. Store Circle, OPTCL" payable at "Bhubaneswar" along with the sealed tender.

Tenderers have to submit refundable interest free EMD amounting Rs.3,200/- (Rupees three thousand two hundred) only in shape of **Demand Draft / Pay Order** drawn in favour of "G.M., Store Circle, OPTCL" payable at **Bhubaneswar** along with the sealed tender.

In case of non-submission of cost of tender documents and/or non-submission of EMD, the tender shall liable to be rejected at any stage of the contract.

The Complete bid will be received **upto 1 P.M. on dt.27.11.2020** and the same will be **opened at 4.00 P.M.** on the same date. In the event of any specified date for submission or opening of bids being declared a holiday, the bids will be received / opened upto the appointed times on the next working day. Only one representative of the bidder will be allowed to participate in the bid opening with valid identity.

OPTCL reserves the right to accept or reject the tender without assigning any reasons thereof.

Minimum qualification criteria of bidders:

- 1. The Tenderer should have valid MV license from ELBO, PAN & GST registration certificate.
- 2. The Tenderer must have executed Internal Rewiring / Earthing works previously during last two years.

N.B.: All subsequent addendum / corrigendum to the tender shall be hosted in OPTCL's Official Website www.optcl.co.in only.

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INSTRUCTIONS TO TENDERER

1. Submission of Bids:-

Sealed tenders on single part basis, complete in all respect in the manner hereinafter specified are to be dropped in the "**Tender Box**" in the office of Sr. General Manager (S&S), OPTCL, Bhubaneswar on or before the date and time specified in the notice inviting the tenders against the relevant tender Specification. The bid shall be in sealed envelope super scribed on the cover the relevant "**Tender Specification number**" on the right hand top side of the envelope.

2. Opening of Bids.

The bid shall be opened in the office of the Sr. General Manager (S&S) in presence of such of the Tenderers or their authorized representatives (limited to one person only) on the due date of opening of tender i.e on 27.11.2020. After scrutiny of the technical particulars and other commercial terms, clarifications as may be required, shall be sought for from the bidders.

Eligibility for Submission of Bids.

The bidder should have valid MV license from ELBO, PAN & GST registration certificate. The bidder must have executed Internal Rewiring / Earthing works in Govt./PSUs/Corporate sectors during the last 2(Two) years.

4. Right to Accept / Reject Bids.

OPTCL reserves the right to reject any or all the tenders without assigning any reasons what so ever if it is in the interest of OPTCL.

5. Mode of Submission of Bids.

- (A) Bids, complete in all respect shall be submitted in person. Any other mode shall not be accepted. The Sealed tenders should be dropped in the "**Tender Box**" in the office of the Sr. General Manager (S&S), OPTCL before due date and time.
- (B) <u>Tenders through Telegraph</u>, <u>E-mail or FAX</u> shall not be accepted under any circumstances.

6. Cost of Tender document

The tenderers shall submit non-refundable amount of Rs.6,720/- (Rupees six thousand seven hundred twenty) only including GST @ 12% towards Cost of Tender Document along with the sealed tender, in the form of Demand draft / Pay order, drawn in favour of the "G. M. Store Circle, OPTCL" payable at "Bhubaneswar".

7. Earnest Money Deposit.

The sealed tender shall be accompanied with interest free Earnest Money of Rs.3,200/-(Rupees three thousand two hundred) only in shape of Demand Draft / Pay Order drawn in favour of "G.M., Store Circle, OPTCL" payable at Bhubaneswar. Tenders without the required E.M.D. will be rejected outright.

No adjustment towards Earnest Money Deposit shall be permitted against any outstanding amount with OPTCL.

- (i) In case of un-successful Tenderer, the Earnest Money will be refunded after the tender is decided. In case of successful tenderer, EMD will be refunded only after acceptance of Performance Bank Guarantee.
- (ii) Earnest Money will be forfeited if the Tenderer fails to accept the order of rate contract and / or work orders issued in his favour.

8. Validity of the Bids

The tenders should be valid for a period of 120 days from the date of opening of the tender as notified in the tender notice failing which the tenders will be rejected.

9. PRICE

Tenderers are requested to quote the prices excluding GST in the prescribed format.

10. Tenderers to be fully Conversant with the Clauses of the Specification.

Tenderers are expected to go through the tender specification and fully conversant with the meaning of all the Clauses of the Specification before submitting their tenders. In case of doubt regarding the meaning of any Clause, the Tenderer may seek clarification in writing from the Sr. General Manager (S&S), OPTCL. This however, does not entitle the Tenderer to ask for time beyond due date fixed for receipt of tender.

11. Documents to Accompany Bids

Tenderers are required to submit the following documents with their bid :-

- i) EMD as specified in the tender notice.
- ii) Cost of Tender document as specified in the tender notice.
- iii) Declaration Form. (As per **Annexure –I**).
- iv) Copy of valid GST Regd. Certificate.
- v) Copy of PAN card.
- vi) Copy of valid MV license from ELBO, Bhubaneswar.
- vii) Copy of Work orders in support of having experience in executing Internal Rewiring / Earthing works in Govt./ PSUs /Corporate sectors during the last 2(Two) years.
- viii) Copies of Audited Annual Accounts / CA certificate for last 2 years ending 31.03.2020.
- ix) Copies of Income Tax return filed during last 2(two) Financial Years ending on 31.03.2019.
- x) Copy of GST Annual return for the F.Y. 2019-20 ending on 31.03.2020.
- xi) An affidavit declaring that Agency/contractor has never been debarred or black listed by any Govt. / PSU / Corporate Sector, as per the format enclosed at **Annexure-II**.
- xii) Price Schedule in the prescribed format. (As per **Annexure –III**).
- xiii) Copy of tender documents with signature & seal in each page as a token of acceptance of all terms & conditions of the tender.
- xiv) Check List (As per Annexure-IV).

12. Conditional Offer

Conditional offer shall not be accepted.

13. General

- i) Over writing should be avoided
- ii) In the event of discrepancy or arithmetical error in the schedule of price, the decision of the Purchaser shall be final and binding on the Tenderer.
- iii) For evaluation the price mentioned in words shall be taken if there is any difference in figure and words in the price bid.

iv) Notice inviting tender shall form part of this Specification.

GENERAL TERMS & CONDITIONS OF CONTRACT (G.T.C.C)

1. Scope of the Contract

The scopes of "Rate Contract for Re-wiring & Earthing of quarters at OPTCL Colony-Bhoinagar / Chandrasekharpur / Mancheswar, PTC Chandaka and Office Buildings - OPTCL Hqrs., Bhubaneswar" are as per the "Description of work for Non-modular / Modular wiring and Earthing" mentioned in the Price Schedule prescribed format – (Annexure –III).

The rate contract holder shall carry out and complete the work as per the work order placed on him, in every respect and to the satisfaction of the Engineer-in-charge within the stipulated period.

2.0 **Definition of Terms**

For the purpose of this Specification and General Terms & Conditions of Contract (G.T.C.C.) the following words shall have the meanings hereby indicated, except where otherwise described or defined.

- 2.1 "The Purchaser" shall mean the Sr. General Manager (S&S) for & on behalf of ODISHA POWER TRANSMISSION CORPORATION LTD., Bhubaneswar.
- 2.2 "The Engineer" shall mean the engineer appointed by the Purchaser for the purpose of this contract.
- 2.3 "Purchaser's Representative" shall mean any Officers authorised by the Purchaser to supervise, inspect, test and examine workmanship and materials.
- 2.4 "The Contractor" shall mean the Bidder whose bid has been accepted by the Purchaser and shall include the Bidders' executives, Administrators, Successors and permitted assignees.
- 2.5 "Equipment" shall mean and include all machinery, apparatus, Materials, articles to be provided under the contract by the Contractor.
- 2.6 "Contract Price" shall mean the sum named in or calculated in accordance with the provisions of the contract as the "Contract Price".
- 2.7 "General Conditions" shall mean these General Terms and Conditions of Contract.
- 2.8 "The Specification" shall mean the Specification annexed to or issued with G.T.C.C. and shall include the specification attached thereto.
- 2.9 "Writing" shall include any manuscript, type written, printed or other statement reproduction in any visible form and whether under seal or under hand.
- 3.0 "F.O.R. Destination Costs" shall mean the cost of equipment and material at the consignee's site.
- 3.1 The term "Contract documents" shall mean and include G.T.C.C., Specifications, Schedules, Drawings, Form of Tender, Covering Letter, Schedule of Price of the final successful bidder any special conditions applicable to the particular contract, Specifications and drawings and the purchase/work order & the agreement if any to be entered into.

3. Rejection of Works / Materials

In the event any of the works / materials carried out / supplied by the Contractor is found defective due to faulty design, bad workmanship, bad materials used or otherwise not in conformity with the requirements of the specification, the Purchaser shall either reject the works / materials or ask the Contractor in writing to rectify the same. The Contractor on receipt of such notification shall either rectify the work or replace the defective material free of cost to the Purchaser. If the Contractor fails to do so, the Purchaser may:-

- (a) As its option, replace or rectify such defective work / material and recover the extra costs so involved from the Contractor plus fifteen percent (15%) and /or.
- (b) Terminate the contract for balance work/supplies, with enforcement of Clause-15-"Cost Reduction (Penalty) for Delay in Completion of Contract" as per contract for the balance work / un-delivered materials and with forfeiture of EMD.

4. Experience of Bidders:

The bidders must have experience in executing similar type of jobs previously. As a supporting proof, the bids should be accompanied with copy of Work orders pertaining to Internal Rewiring / Earthing works in Govt./ PSUs /Corporate sectors during the last 2(Two) years.

5. Right to Reject / Accept any Tender:

The Purchaser reserves the right to reject or to accept any or all tenders if the situation so warrants in the interest of OPTCL.

6. <u>Period of Contract</u>

The period of contract is for a period of **01 (one)** year from the date of issue of order for rate contract. On successful completion of the contract, if OPTCL desires, the contract period can be extended for a further period at the prevailing rates and other terms & conditions subject to satisfactory performance and on consent of the parties with approval from Competent Authority.

- 6.1 OPTCL reserves the right to terminate the contract without assigning any reason thereof, at any time during the pendency of the contract by giving **30 days' notice** of its intention to do so. In the event of any such termination of the contract, the Agency/Contractor shall only be entitled for the amount for services actually provided under the contract till the termination of contract, subject to deductions, if any, under the terms of contract. No other claims can be allowed or considered.
- 6.2 In case of persistent breach of the contract or unsatisfactory services by the Agency / firm / contractor, OPTCL reserves the right to terminate the contract along with forfeiture of Performance Security Deposit and may also blacklist the Agency / firm / contractor for participation in future tenders.

7. Contractor's Default Liability.

i) The Purchaser may, upon written notice of default to the Contractor, terminate the contract in circumstances detailed hereunder.

If in the judgment of the Purchaser, the Contractor fails to complete the work within the time specified in the work order or within the period for which extension has been granted by the Purchaser in writing in response to written request of the Contractor.

If in the judgment of the Purchaser, the Contractor fails to comply with any of the provisions of this contract.

- ii) In the event, Purchaser terminates the contract in whole or in part, the Purchaser reserves the right to carry out the work / purchase upon such terms and in such a manner as he may deem appropriate and the Contractor will be liable to the Purchaser for any additional costs for such similar work / material and/or for penalty for delay until such reasonable time as may be required for completion of the work with supply of material if any.
- iii) In the event the Purchaser does not terminate the contract, Contractor shall continue executing the contract, in which case, he shall be liable to the Purchaser as per Clause-15 "Cost Reduction (Penalty) for Delay in Completion of Contract" for delay. This shall be based only on written request of the supplier and written willingness of Purchaser.

8. Force Majeure:

The Contractor shall not be liable for any penalty for delay or for failure to perform the contract for reasons of Force Majeure such as acts of God, acts of the public enemy, acts of Govt., Fires, Floods, Epidemics, Pandemics, Quarantine restrictions, strikes, Freight Embargo, provided that the Contractor shall within ten (10) days from the beginning of such delay notify the Purchaser in writing of the cause of delay, upon which, the Purchaser shall verify the facts and grant such extension as facts justify

9. Extension of Time.

If the work under this Rate Contract is delayed due to reasons beyond the control of the Contractor, the Contractor shall without delay give notice to the Purchaser in writing of his claim for an extension of time. The Purchaser on receipt of such notice may agree to extend the date of completion as may be reasonable but without prejudice to other terms and conditions of the contract.

10. Guarantee Period.

- i) The works / materials should be Guaranteed against defects in design, materials and workmanship for a period of at least 12 (twelve) months from the date of completion of work. A Guarantee Certificate to this effect should be furnished in triplicate to the purchaser for his approval. Any defect noticed during this period must be rectified by the Contractor free of cost to the Purchaser provided such defects are due to faulty design, bad workmanship or bad materials used, upon written notice from the Purchaser.
- ii) Works / materials found defective during Guarantee period shall have to be guaranteed after repair / replacement for a further period of 12 months from the date of completion of work.

11. Bank Guarantee towards Security Deposit and Performance Guarantee.

The successful bidders should furnish a Composite Bank Guarantee as per the proforma enclosed at Annexure-V for Rs.32,000/- (Rupees thirty two thousand) only from any Nationalized/ Scheduled Bank having a place of business at Bhubaneswar, to the office of Sr. General Manager, Stores & Services Circle, OPTCL, Bhubaneswar within 15(Fifteen) days of issue of order. The Bank Guarantee shall be executed on non-judicial stamp paper worth of Rs.29/- or as applicable, as per the prevalent rules, valid for a period of 24 (twenty four) months from the date of issue of order, failing which the rate contract order will be liable for cancellation without any further written notice. The said Bank Guarantee should be accompanied or followed by a confirmation letter from the concerned Bank, & should have provision for encashment at BBSR, before the Bank Guarantee is accepted & all concerned intimated. The BG should be revalidated as & when intimated to you to cover the entire guarantee period. You are requested to extend the validity for the entire guarantee period.

- i) No interest is payable on any kind of Bank Guarantee.
- ii) In case of non-fulfillment of contractual obligation as required in the detailed work order/specification, the composite Bank Guarantee shall be forfeited.

12. <u>Terms of Payment</u>.

100% payment shall be made within 30 days of completion of rewiring / earthing work with supply of materials against submission of Bills with Joint Measurement Certificate (JMC) signed by the Contractor and Verifying Officer with counter signature of next Higher Authority along with approved Guarantee Certificates and Composite Bank Guarantee.

13. Paying Officer:

GM (Mech.), EHT Store Division, OPTCL, Bhubaneswar is the paying officer for the above works of the tender.

14. Verifying Officer:

Dy. Manager (EI) EM Cell, OPTCL, Bhubaneswar is the verifying officer for the rewiring / earthing works.

15. Cost Reduction (Penalty) for Delay in Completion of Contract.

(i) If the Contractor fails to complete the work within the completion period specified in the work order placed against the rate contract including time extension, if any, granted thereto, the Purchaser shall recover from the Contractor penalty for a sum of one half of one percent (0.5 per cent) of the contract price for each calendar week of delay or any part thereof. The total amount of penalty shall not exceed five per cent (5%) of the work order amount. (ii) If the contractor fails to rectify/ replace the works/materials within 30days from the date of intimation of the fact, so noticed by the purchaser within the guarantee period then the penalty for sum of one half of the one percent (0.5%) of the total work order amount for each calendar week of delay shall be recovered by the purchaser within the guarantee period. The total amount of penalty in this case shall not exceed 10% (Ten percent) of the work order amount. If the defects so intimated will not be rectified by the contractor within the guarantee period then whole of the BG will be forfeited by the purchaser, without any intimation to the contractor.

16. <u>Contractor's Responsibility</u>.

Notwithstanding anything mentioned in the Specification or subsequent approval or acceptance by the Purchaser, the ultimate responsibility for workmanship, materials used and satisfactory performance shall rest with the Tenderers.

17. <u>Validity</u>.

Prices and conditions contained in the offer by the Tenderer should be kept valid for a period of 120 days from the date of opening of the tender, failing which, the tender shall be rejected.

18. <u>Jurisdiction of Court</u>.

Suits if any arising out of this contract shall be subject to jurisdiction of the Courts at Bhubaneswar, District- Khorda, Odisha, to the exclusion of all other Courts.

19. Outright Rejection of Tenders.

Tenders shall be outright rejected if -

- Tenders have not been dropped in the "Tender Box" in the office of Sr. General Manager (S&S), OPTCL, Bhubaneswar on or before the date and time specified in the notice inviting the tenders.
- ii) Tenders submitted through FAX or E-mail.
- iii) Tenders not accompanied with the prescribed **Earnest Money Deposit** and **Cost of Tender document.**
- iv) Tender not valid for a period of 120 days from the date of opening of Tender.
- v) The prices are not quoted in the specified format. Incomplete submission of this schedule will make the tender liable for rejection.
- vi) Tenders not accompanied with copy of MV license, PAN and GST registration certificate.

20. <u>Technical specification of materials, Procedure of works with completion tests and Instructions.</u>

20.1 List of approved make of the electrical items to be used

| SI. No. | Description Of Item | Make |
|------------|---|------------------------------|
| 1. | GALVANISED BOXES OF APPROPRITE SIZES | AS APPROVED BY OPTCL |
| 1. | | |
| 2. | NON-MODULAR PAINO TYPE SWITCH & NON-MODULAR | ANCHOR / GREAT WHITE OR |
| | 5PIN SOCKET, CEILING ROSE, ANGLE HOLDER, BATTEN HOLDER OF WHITE COLOUR MATCHING WITH COLOUR | AS APPROVED BY OPTCL |
| | OF SWITCHES. | |
| 3. | 6 AMPS/240 VOLTS , 400W ELECTRONIC POSITIONAL | ANCHOR / GREAT WHITE / |
| | STEP WISE SOCKET TYPE FAN REGULATOR / CALL | HAVELS OR AS APPROVED |
| | BELL/ BELL PUSH / INDICATOR | BY OPTCL |
| 4. | SINGLE CORE P.V.C. INSULATED AND UNSHEATHED | POLYCAB / ANCHOR / L & T / |
| | WIRES OF COPPER CONDUCTOR OF 1100 VOLTS | FENOLEX / HAVELLS OR AS |
| | GRADE OF VARIOUS SIZES WITH APPROVALS FROM BIS (ISI MARK), FIA, TAC AND ISO 9002. | APPROVED BY OPTCL |
| 5. | BAKELITE COVER OF WHITE COLOUR | AS APPROVED BY OPTCL |
| 6. | 230V DP MAIN SWITCH / KIT KAT FUSES | ANCHOR / HPL / SEIMENS |
| | | OR AS APPROVED BY OPTCL |
| 7. | CABLE SOCKETS / BOTTLE SOCKETS | DOWELLS OR AS |
| | | APPROVED BY OPTCL |
| 8. | PVC PIPE / POLYTHINE PIPE (EXTRA SUPER QUALITY) | POLYCAB AS APPROVED BY OPTCL |
| 10. | SCREWS (CADMIUM / BRASS / STEEL) | AS APPROVED BY OPTCL |
| 11. | MCB/RCB/MCCB | SIMENS / L&T / LEGRAND |
| 12. | G.I.EARTHING PIPE | TATA / JINDAL |
| 13. | MODULAR TYPE SWITCH & PAINO TYPE 5PIN SOCKET, | LEGREND / ROMA / L&T / |
| | 32AMP KIT KAT FUSES, CEILING ROSE, ANGLE HOLDER, | HAVELLS OR AS APPROVED |
| | BATTEN HOLDER OF WHITE COLOUR MATCHING WITH | BY OPTCL |
| | COLOUR OF SWITCHES. | |

N.B.: Wherever the make of the material has not been mentioned either in the above list or in the schedule, the same shall confirm to the relevant BIS Specification and such material should be got approved by the concerned Engineer-in-charge before it is utilised in the work.

20.2 Work Procedure:

- i) The electrical work will be carried out in accordance with the General Specifications 1972 with amendments upto date for electrical works in Government Buildings while complying in all respects with the requirements of the latest Indian Electricity Rules in force at the time of execution.
- ii) The electrical work shall be carried out simultaneously with the building work and will be continued till it is completed satisfactorily along with the completion of essential portions of building work.
- iii) If any minor alterations are found necessary, the contractor shall do the same within the tendered rates.

- iv) The work shall be carried out in the best workman like manner and any defect in the work or changes in the design etc., if pointed out shall be carried out by the contractor within the tendered rates.
- v) The contractor shall employ adequate labour to complete the work within the stipulated time and make his own arrangements for housing labour and storage of materials etc. A full time Electrical Supervisor / engineer shall be employed by the contractor who will take instructions from the Engineer-in-charge.
- vi) Any materials of OPTCL, if damaged in any way during execution of work or otherwise, shall be made good by the contractor at his own cost.
- vii) During the progress of work, completed portions of the buildings may be occupied and put to use by OPTCL but contractor will remain fully responsible for maintenance of the electrical installations till the entire work covered by this contract is satisfactorily completed by him and taken over by the Engineer-in-charge.
- viii) The contractor shall obtain for himself, on his own responsibility and at his own expense, all the information which may be necessary for the purpose of tendering and entering into a contract, and must inspect the site, examine and study the specifications, drawings and the design of the electrical installations, the building plans etc. If the drawings are supplied to the contractor for tender purposes, the same must be returned in good condition. The contractor shall also make local and independent inquiries, if required.
- ix) All tender rates will include the cost of materials, erection, connections, labour, supervision, tools, plant, transport, all taxes except GST, contingencies, breakage, wastage, sundries, scaffolding, maintenance of installation for one year during guarantee period.
- x) The contractor, while executing the work, shall conform to the provision of the Government Acts relating to the work and to the regulations and By-laws of the local authorities, and relevant rules and regulations of OPTCL. The contractor shall give all notices, required by the Acts, Regulations or By-Laws. He will also undertake to provide test certificates and drawings of supplied materials if any. The contractor shall also obtain all approvals for the items of work done and shall also obtain all approvals for the items of works done under this contract from the appropriate authorities. Contractor shall posses valid MV License, from ELBO, Bhubaneswar.
- xi) Sample of materials and fabrication drawings will be submitted by the contractor according to the schedule / specification. Any deviation from the schedule/ specification must have the written approval from Engineer-in-charge.

20.3 Position of lighting, distribution boards and main switches:

- i) The recommended positions of the lighting points, control switches, distribution boards and Main switches as shown on the layout drawings will be generally adhered to.
- ii) Should there be any discrepancy or incomplete description, ambiguity or omission in the drawings and other documents, whether original or supplementary, the contractor shall immediately, on discovering the same, bring it to the attention of the Engineer-in-charge.

20.4 Technical specification:

i) PVC CONDUITS / POLYTHENE PIPE:

These shall be hot extruded pipes made from rigid PVC. The pipes shall be of heavy duty unplasticized, rigid, free from filler materials and stabilized against decay by ultra violet radiation. The pipe must withstand the cold bending at site. The conduit shall have a proper circular section and the relevant IS code. The bends shall be of same size and brand of PVC conduit. The bends shall be properly and concentrically bellied for atleast the same length as the pipe diameter and shall withstand a close tight fit of the pipe into it. The conduit system shall be so laid out that it will obviate the use of tees, elbows and sharp bends.

ii) CEILING OUTLET BOXES:

Outlet boxes shall be of sufficient depth and made of **GI** and so installed as to maintain continuity throughout. These shall be so protected at the time of laying that no mortar finds its way inside during concrete filling or plastering.

iii) G.I DRAW BOXES:

G.I. draw boxes / junction boxes of ample dimensions shall be provided at convenient points on walls / ceiling to facilitate pulling of long runs of cables. These should be completely concealed and covered with hylam covers flush with plaster work. These boxes will be as few as possible. All the G.I. boxes shall have metal on all sides except in front.

iv) G.I. SWITCH BOXES:

a) Vertical drops shall be cut by the contractor to sufficient depth to allow full thickness of plaster over conduits. Width of the chase will be made to accommodate the required number of conduits. The chases will be filled with cement coarse and mortar (1:3) and properly cured by watering. If a chase is cut in an already finished surface the contractor shall fill the chase and finish it to match existing finish within the tendered rates.

When the conduit is to be embedded in a concrete member it shall be adequately tied to the reinforcement to prevent displacement during casting. Conduits in chases or a maximum of 1.5 mtr. centre to centre.

When the conduit is laid above the slab below the plinth the same shall be covered with cement concrete mixture 1:3:6 using ½" thick stone aggregate and coarse sand.

b) The conduit shall have ample sectional area to facilitate the drawing of cable. The contractor should refer to the table given below for the laying of wires.

| Nominal cross sectional | | Conduit sizes (PVC/ Polythene) in mm | | | | |
|-------------------------|-----------|--------------------------------------|-------|-------|-------|-------|
| area of c | conductor | | | | | |
| Sq.mm | Inch | 19/20 | 25/25 | 32/32 | 38/40 | 50/50 |
| 1.5 | 3/.029 | 4 | 8 | 12 | - | - |
| 2.5 | 3/.036 | 3 | 6 | 10 | - | - |
| 4.0 | 7/.029 | 2 | 5 | 8 | - | - |
| 6.0 | 7/.036 | - | 4 | 7 | - | - |
| 10.0 | 7/.044 | - | 3 | 5 | 6 | - |
| 16.0 | 7/.064 | - | 2 | 3 | 5 | 7 |
| 25.0 | 19/.044 | - | - | 2 | 3 | 6 |
| 35.0 | 19/.064 | - | - | - | 2 | 5 |
| 50.0 | 19/.083 | - | - | - | - | 3 |
| 70.0 | 37/.064 | - | - | - | - | 3 |

Note: The above table shows the maximum capacities of conduits for a simultaneous <u>drawal</u> of cables. The table applies to 1100 volts grade PVC insulated copper/ aluminum conductor cables.

- c) All boxes shall have ample space at the back and on the sides for accommodating wires and checknut entries. Those shall be completely concealed having edges flush with wall surface. Cover plate shall be fixed to these by means of brass machine screws. No timbler shall be used for any support. The boxes shall be painted before and after erection.
- d) The entire conduit systems including outlets and boxes shall be thoroughly cleaned after completion of erection and before drawing of cables.

v. SWITCHES, SOCKETS AND REGULATORS:

All switches, sockets and regulators shall be flushed with wall unless directed otherwise where necessary. The mounting shall be done on the prescribed grid plates using the correct accessories and tools specified by the manufacturer.

vi) CABLES:

All cables shall be 1100 volts and must confirm to the latest IS specification.

vii) POINT WIRING:

The Point wiring shall be carried out in the under mentioned manner each of which conform to the given specifications.

- a) In concealed system including providing and fixing of conduits, bends, G.I. junction boxes, check nuts, PVC bushes etc.
- b) Loop system will be adopted (only in the outlet boxes for neutral wire and in the switch box for live wires) throughout, including supply and drawing of required sizes of wire without damaging the same.
- c) Each circuit will have independent neutral wire and will be complete upto outlet box and switch box. The point will be complete with conduit including accessories and wires, necessary junction boxes, outlet boxes and switch boxes, connectors or ceiling roses, switches, switch plates and flush plates including necessary earthing and connections etc. The installation generally will be carried out in conformity with the Indian Electricity Act and IS specification.
- d) Wiring for light, fan, convenience plug (6A) etc. will be as above. The size of wire shall not be less than 2.5sq.mm PVC insulated Copper wire or as specified against each item.
- e) The light plug points shall be complete with 3 pin 5 A plug flush type socket and switch enclosed in an G.I. Box with the controlling switch as required and the third pin shall be earthed with 1.0sqmm PVC insulated cupper wire as mentioned in the schedule of quantity as earth wire. The earthing wire will run to each point of the building.
- f) The fan point shall have a provision in the switch box for mounting the regulators, unless directed otherwise preferably size: 10" x 5"x2".
- g) Wiring for power plugs shall be as above. Each circuit shall have one or two plug points as required and each point shall be earthed. The point shall be considered complete with circuit, 3pin 15A plug, socket and switch mounted in a G.I. box with flush plates. Wiring for power plugs shall be as above.
- h) Separate and independent conduits will be used for each of the following systems:
 - i) Lighting system
 - ii) Power system
 - iii) Air-conditioning.

The rate per point shall include all materials and labour required for completing the points as mentioned above. Measurements will be made completing the points as mentioned above. Measurements will be in numbers of each kind of point.

viii) MAINS AND SUBMAINS:

Mains and submains shall consists of wires, cables and conduits, bends, junction boxes, rubber bushes, checknuts etc. as specified before. The sizes and capacities of conduits and wires shall be as stated in the schedule of quantities and will commence from the main switches to the various distribution boards Wires shall be drawn in concealed or surface conduits as required without being damaged. For this purpose draw boxes shall be located at convenient but not in an independent conduit. Necessary provisions of wires lengths entering and emerging from the conduit must be made for connections. Colour code for phase and neutral will be followed i.e. RED, YELLOW, BLUE AND BLACK colour wires are to be used. Measurements will be taken of the actual conduit run containing the wires from one switchgear to another. Per meter rate shall include all materials, connections, labour etc. as specified above. The colour code of running earth wire shall be Green.

ix) EARTHING:

Earthing shall conform to the following specifications. For other details not covered in this specification, relevant Indian standards shall be referred to.

A) TYPES OF EARTH ELECTRODES:

- Pipe earth electrode: The length of the GI pipe will be 03 mtr. length, 50mm dia & 03 mm thickness with 12mm perforated holes at a distance of 30 mm. Approximately 25kgs of salt & two bags of charcoal / coal dust are required for each earthing. The pipe should be of TATA / Zindal make. The GI flat of size 25X3mm will be connected through the GI earthing pipe to the building. The No.6 SWG GI wire will run from the GI flat to the main switch for earthing.
- 2. Plate earth electrode: The GI plate of size 600X600X8 mm and GI flat of size 25X3mm are to be used for the purpose. GI pipe of 3000mm length, 3mm thickness and 40 mm dia with 12mm perforated holes at a distance of 30 mm should be provided, The pipe should be of TATA / Zindal make. Plate earthing is to be done as per drawing supplied by OPTCL. Salt and Cahrcoal is to be in 1:1 proportion i.e 25 kg of each material per pit. The No.6 SWG GI wire will run from the GI flat to the main switch for earthing.

B) LOCATION OF EARTH ELECTRODE:

Normally an earth electrode shall not be situated less than 1.5m from any building. Care shall be taken that the excavations for earth electrode may not affect the column footing or foundations of the building. In such cases the electrodes shall be situated farther away from the building.

The location of the earth electrode will be where the soil has reasonable chance of remaining moist, as far as possible. Entrances, pavements and roadways, are definitely to be avoided for locating the earth electrode.

C) METHOD OF CONNECTING EARTHING LEAD TO EARTH ELECTRODE:

In case of plate electrode the earthing lead shall be securely bolted to the plate with two bolts, nuts, checknuts and washers. In the case of pipe earth electrode, it shall be connected by

means of a through bolt, nuts, washers and cable socket. All materials used for connecting the earth lead with electrode shall be G.I in case of G.I plate electrode. The earthing lead shall be securely connected at the other end to the main board. Loop earthing shall be provided for all mounting of main board and other metal clad switches and distribution fuse boards with not less than 2.5sq. mm insulated Copper wire. The earthing lead from electrode onwards shall be suitably protected from mechanical damage by a 15mm G.I pipe in case of wire and by 50mm dia medium G.I pipe in case of strip. Portions of this protection pipe within ground shall be buried at least 30cm deep (to be increased to 50cm in case of road crossing and pavement). The portion within the building shall be recessed in walls and floors to adequate depth.

In all cases the relevant provisions of rules 33, 61 and 67 of Indian Electricity rules 1956 as amended shall be complied with. Metallic covers or supports of all medium pressure or HT apparatus or conductors shall in all cases be connected to not less than two separate and distinct earths including electrodes. No earth electrode shall have a greater ohmic resistance than 5 (five) ohms as measured by an approved earth testing apparatus. In rocky soil the resistance must be less than 8 (eight) ohms.

20.5 PROGRESS AND TIME OF COMPLETION:-

- a) The work will commence immediately after the contractor receives the work order.
- b) The contractor will work in cooperation with the building contractor and other contractors and shall arrange to place his conduits in the masonry and concrete work as the building or other work proceeds. Any hold up of the building or otherwise, shall be the liable for damages if any, by the contractor.
- c) The contractor shall consult the Engineer-in-charge and draw up a time schedule and must strictly adhered to the same.

20.6 Work Completion Tests:

On completion of installations the following tests shall be carried out whose cost is to be borne by the contractor:-

- a) Insulation Resistance Test.
- b) Polarity Test of Switch.
- c) Earth Continuity Test.
- d) Earth Resistance Test.

20.7 Post work Maintenance (Prior to handing over) :

The completed installations inclusive of wiring, light fittings and fans (if supplied by the contractor) shall not be finally taken over and acceptance certificate shall not be issued to the contractor unless the defects have been rectified by him. During this period the contractor shall be liable for-

- a) The replacement of any defective material supplied / installed by him.
- b) The rectification of all the defects arising out of defective workmanship...

Until the installation is finally taken over, the contractor shall have the right of entry to the premises, at his own risk and expense, for maintaining the installation in proper order. To facilitate maintenance the contractor should clearly indicate the detailed distribution diagram on every switchgear, distribution board, sub distribution boards and main boards.

20.8 Instruction to the Contractor:

- i) All types boards are to be fixed in full / half concealed manner.
- ii) The PVC saddles are to be fixed at a distance of 300mm. in case at surface wiring.
- iii) The contractor shall supply all materials, labour, T & P for successful erection, testing & commissioning of the wiring of quarters. All costs should be inclusive. The contractor should test the earth resistance after completion of each earthing with digital earth megger.
- iv) The cement quality shall be matching to ISS & make ACC / Konark or Ultratech of Grade 53.
- v) Mud matting shall be 1:3:6.
- vi) All plastering shall be of 1: 5 ratio.

21. <u>LIST OF ANNEXURES</u>

The following Schedules and proforma are annexed to this Specification as referred to in the relevant Clauses.

| i) | Declaration Form | ANNEXURE-I |
|------|--|--------------|
| ii) | Affidavit declaring that Agency/contractor has never been debarred or black listed by any Govt. / PSU / Corporate Sector | ANNEXURE-II |
| iii) | Price Schedule | ANNEXURE-III |
| iv) | Check List | ANNEXURE-IV |
| v) | Format of Composite Bank Guarantee for Security Deposit & Performance guarantee. | ANNEXURE-V |

SR. GENERAL MANAGER [S&S.]

ANNEXURE - I

DECLARATION FORM

TENDER NOTICE NO. SRGM(S&S)- /2020-21

To

The Sr. General Manager (S&S) OPTCL, Bhubaneswar

Having examined the above specification together with Tender conditions referred to therein I/We the undersigned hereby offer for Rate Contract for Re-wiring & Earthing of quarters at OPTCL Colony-Bhoinagar / Chandrasekharpur / Mancheswar, PTC Chandaka and Office Buildings - OPTCL Hqrs., Bhubaneswar as per the Specification and General Conditions, at the rates entered in the attached Schedule of price format (Annexure-III) in the Tender.

- 1. I/We hereby undertake to complete the Rewiring / earthing work with supply of materials within the time specified in the Work Order.
- 3. I/We do certify to have submitted the bid by remitting DD/Pay order towards the cost of the tender document and EMD.

| a) The particular of payment towards cost of tender document is: | | | | |
|--|--------------------------------|--------------------|-------|--|
| | Demand Draft / Pay Order No | dt | drawr | |
| | on | _Bank amounting Rs | | |
| b) | The particular of payment towa | ards EMD is: | | |
| | Demand Draft/Pay Order No | dt | drawr | |
| | on | Bank amounting Rs | | |

- 2. I/We do hereby declare that, I/We am/are submitting this tender after going through the complete set of Tender documents and accept all the terms and conditions of the Tender.
- 4. I/We do declare that, the documents submitted for the tender are true, correct and authenticated. I / We also undertake that if any of the information found false, my/ our offer against the tender will be rejected and any action as deemed proper by OPTCL may be taken against me / us.
- 5. In the event of Rate Contract Order being issued in my/our favour, I/We agree to furnish the Composite Bank Guarantee in the prescribed format in the manner acceptable to ODISHA POWER TRANSMISSION CORPORATION LTD for the sum as applicable as per Clause-11 of G.T.C.C. of this Specification within 15 days of issue of rate contract order failing which I/We clearly understand that the said Letter of empanelment / rate contract order will be liable to be withdrawn by the OPTCL Authority.

ANNEXURE-II

SPECIMEN FORMAT

Affidavit declaring that Agency/Firm/Contractor has not been debarred, disqualified or black listed by any Govt./PSU/Corporate Sector client

(To be executed on a Stamp paper of appropriate Value)

| | | | | | | | _ | | | | | |
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| | I/We, | | | • • • • • • • • • | • | S/O | | | (n | nention | all the | names |
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SCHEDULE OF PRICE (EXCLUDING GST)

Rate Contract of Re-wiring & Earthing of Quarters at OPTCL Colony at Bhoinagar, Chandrasekharpur & SLDC, Mancheswar, PTC-Chandaka and Office Buildings of OPTCL at Bhubaneswar, Odisha

I. Concealed Wiring with supply of Non-Modular/Modular Base & cover, Switch & Socket etc.

| A. I | Vo | n-N | Vlα | du | lar |
|------|----|-----|-----|----|-----|
|------|----|-----|-----|----|-----|

| | A. Non-would | | | |
|------------|---|--------------|----------------------------------|----------------------------------|
| SI. No. | DescriptionOf Work for Non Modular Wiring | Unit | Estimated Unit Rate in Rs. | Quoted Unit Rate in Rs. |
| 1 | Concealed wiring to light/E.Fan point in 20mm dia Polythene pipe with 1.5 sqmm PVC insulated, PVC sheathed single core copper wire of Finolex/MScab/V-Guard make and earth continuity in 1.5 sqmm dia PVC insulated, PVC sheathed single core copper wire with G.I switch board of appropriate sizes including provision of earth screw, with 3mm thick bakelite / Phenolic laminated front cover fixed with steel screw including supply & fixing of 6A, 250V, flush type switch and ceiling rose as specified mounted on G.I circular box having front bakelite cover complete with all accessories & Connections. | Per Point | 629.00 | |
| 2 | Concealed wiring to Fan point in 20mm dia Polythene pipe with 1.5 sqmm PVC insulated, PVC sheathed single core copper wire of Finolex/MScab/V-Guard make and earth continuity in 1.5 sqmm dia PVC insulated, PVC sheathed single core copper wire with G.I switch board of appropriate sizes including provision of earth screw, with 3mm thick bakelite / Phenolic laminated front cover fixed with steel screw including supply & fixing of 6A, 250V, flush type switch and ceiling rose as specified mounted on G.I circular box having front bakelite cover complete with all accessories & Connections. | Per Point | 629.00 | |
| 3 | Wiring for twin control light point with 1.5 sq.mm FR PVC insulated single core multistrand copper conductor with earth continuity in 1.5 sq. mm. of ISI marked in recess PVC conduit with 6 Amp Two way Piaono type switch with G.I switch board of appropriate sizes including provision of earth screw, with 3mm thick bakelite / Phenolic laminated front cover fixed with steel screw including supply & fixing of 6A, 250V, flush type switch and ceiling rose as specified mounted on G.I circular box having front bakelite cover complete with all accessories & Connections . (Make of wire -Finolex / L&T / Anchor / Havels /V Guard. | Per Point | 736.00 | |

| 4 | Concealed wiring to call bell / buzzer point in 20mm dia Polythene / PVC conduit heavy duty ISI marked, conforming to IS 9537 / 1983, Part – III with 2.5 sqmm PVC insulated, PVC sheathed single core copper wire of approved make and earth continuity in 1.5 sqmm PVC insulated, PVC sheathed single core copper wire with G.I switch board of appropriate sizes including provision of earth screw with 3mm thick bakelite / Phenolic laminated front cover fixed with steel screw including supply & fixing of 6A, 250V, flush type bell push and ceiling rose of approved make having front bakelite cover with all accessories & Connections. | Per Point | 629.00 | |
|------------|--|--------------|----------------------------------|----------------------------------|
| | B. Modular | | | |
| SI. No. | Description Of Work for Modular Wiring | Unit | Estimated Unit Rate in Rs. | Quoted Unit Rate in Rs. |
| 1 | Concealed wiring to light/E.Fan point in 20mm dia Polythene pipe with 1.5 sqmm PVC insulated, PVC sheathed single core copper wire of Finolex/MScab/V-Guard make and earth continuity in 1.5 sqmm dia PVC insulated, PVC sheathed single core copper wire with Modular switch board of appropriate sizes including provision of earth screw, with Modular Box, Base & Cover fixed with steel screw including supply & fixing of 6A, 250V, Modular type switch and ceiling rose as specified mounted on Modular box including all accesories and connection as per direction of Engineer in Charge. | Per Point | 729.00 | |
| 2 | Concealed wiring to Fan point in 20mm dia Polythene pipe with 1.5 sqmm PVC insulated, PVC sheathed single core copper wire of Finolex/MScab/V-Guard make and earth continuity in 1.5 sqmm dia PVC insulated, PVC sheathed single core copper wire with Modular switch board of appropriate sizes including provision of earth screw, with Modular Box, Base & Cover fixed with steel screw including supply & fixing of 6A, 250V, Modular type switch and ceiling rose as specified mounted on Modular box including all accesories and connection as per direction of Engineer in Charge. | Per Point | 729.00 | |
| 3 | Wiring for twin control light point with 1.5 sq.mm FR PVC insulated single core multistrand copper conductor of ISI marked in recess PVC conduit with 10 Amp Two way Modular type switch with ISI marked, Modular base and Cover plate suitable size ISI marked Modular G.I. box(18 SWG) and earthing point with 1.5 sq.mm FR PVC insulated single core multistrand copper conductor for loop earthing etc as required. (Make of wire -Finolex / L&T / Anchor / Havels /V Guard. | Per Point | 928.00 | |

| Concealed wiring to Callbell point in 20mm dia Polythene pipe with 1.5 sqmm PVC insulated, PVC sheathed single core copper wire of Finolex/MScab/V-Guard make and earth continuity in 1.5 sqmm dia PVC insulated, PVC sheathed single core copper wire with Modular switch board of appropriate sizes including provision of earth screw, with Modular Box, Base & Cover fixed with steel screw including supply & fixing of6A, 250V, modular type bellpush and ceiling rose as specified mounted on Modul box including all accesories and connection as per direction of Engineer in Charge. | | 729.00 | |
|--|--|--------|--|
|--|--|--------|--|

| | II. Circuit / Sub Main wiring in PVC Conduit for Modular & Non-Modular | | | | | | |
|------------|---|----------------------------------|----------------------------------|--|--|--|--|
| SI. No. | Description Of Work | Estimated Unit Rate in Rs. | Quoted Unit Rate in Rs. | | | | |
| 1 | Concealed wiring to submain with 2 x 1.5 sqmm 1.1KV PVC insulated, PVC sheathed single core copper wire of approved make and earth continuity in 1.5 sqmm 1.1KV PVC insulated, PVC sheathed single core copper wire in 20mm dia rigid PVC polythine pipe of approved make & Complete with all accessories & Connections. | Per Mtr. | 124.00 | | | | |
| 2 | Concealed wiring to submain with 2 x 2.5 sqmm 1.1KV PVC insulated, PVC sheathed single core copper wire of approved make and earth continuity in 1.5 sqmm 1.1KV PVC insulated, PVC sheathed single core copper wire in 20mm dia rigid PVC polythine pipe of approved make & Complete with all accessories & Connections. | Per Mtr. | 138.00 | | | | |
| 3 | Concealed wiring to submain with 2 x 4.0 sqmm 1.1KV PVC insulated, PVC sheathed single core copper wire of approved make and earth continuity in 1.5 sqmm 1.1KV PVC insulated, PVC sheathed single core copper wire in 20mm dia rigid PVC polythine pipe of approved make & Complete with all accessories & Connections. | Per Mtr. | 155.00 | | | | |
| 4 | Concealed wiring to submain with 2 x 6.0 sqmm 1.1KV PVC insulated, PVC sheathed single core copper wire of approved make and earth continuity in 1.5 sqmm 1.1KV PVC insulated, PVC sheathed single core copper wire in 20mm dia rigid PVC polythine pipe of approved make & Complete with all accessories & Connections. | Per Mtr. | 186.00 | | | | |
| 5 | Concealed wiring to submain in 4 x 6 sq.mm FR PVC insulated single core multistrand copper conductor of ISI marked confirming to IS-694/1990 in 32 mm dia STEEL conduit 1.6 mm thick along with 2 x 2.5 sq.mm FR marked confirming to IS-694/1990 in 32 mm dia STEEL conduit 1.6 mm thick along with 2 x 2.5 sq.mm FR. | Per Mtr. | 332.00 | | | | |
| 6 | Recessed wiring to submain in 4 x 10 sq.mm FR PVC insulated single core multistrand copper conductor of ISI marked confirming to IS-694/1990 in 32 mm dia non-metalic heavy duty flexible conduit 1.6 mm thick along with 2 x 4 sq.mm FR PVC insulated single core multistrand copper conductor as earth wire as equired.(Make of wire Finolex/L&T/Anchor/Havels/V Guard) | Per Mtr. | 408.00 | | | | |

| | II Consected Daviding in evicting research Conduit for | on Marabola | on O Non Mode | .1 |
|------------|---|--------------|----------------------------|----------------------------------|
| SI. No. | II. Concealed Rewiring in existing recessed Conduit for Description Of Work | Unit | Estimated Unit Rate in Rs. | Quoted Unit Rate in Rs. |
| 1 | Re-wiring for light point / fan point / exhaust fan point / call bell point with 1.5 sq.mm FR PVC insulated single core multistrand copper conductor ISI marked and 1.5 sq.mm FR PVC insulated copper conductor single core multistrand copper conductor in existing surface/ recessed PVC/STEEL conduit including dismantling as required. | Per Point | 254.00 | |
| 2 | Rewirng for twin control light point with 1.5 sq.mm FR PVC insulated single core multistrand copper conductor and 1.5 sq.mm FR PVC insulated single core multistrand copper conductor as earth wire in existing surface recessed steel conduit including dismantling as required | Per Point | 188.00 | |
| 3 | Supply and drawing of 1X1.5 Sq.mm size FR PVC insulated single core multistrand copper conductor in existing surface / recessed STEEL/PVC conduit as required. | Per mtr | 45.00 | |
| 4 | Supply and drawing of 2X1.5 Sq.mm size FR PVC insulated single core multistrand copper conductor in existing surface / recessed STEEL/PVC conduit as required. | Per mtr | 55.00 | |
| 5 | Supply and drawing of 3X1.5 Sq.mm size FR PVC insulated single core multistrand copper conductor in existing surface / recessed STEEL/PVC conduit as required. | Per mtr | 65.00 | |
| 6 | Supply and drawing of 2X2.5 Sq.mm size FR PVC insulated single core multistrand copper conductor in existing surface / recessed STEEL/PVC conduit as required. | Per mtr | 69.00 | |
| 7 | Supply and drawing of 3X2.5 Sq.mm size FR PVC insulated single core multistrand copper conductor in existing surface / recessed STEEL/PVC conduit as required. | Per mtr | 86.00 | |
| 8 | Supply and drawing of 2X4 Sq.mm size FR PVC insulated single core multistrand copper conductor in existing surface / recessed STEEL/PVC conduit as required. | Per mtr | 86.00 | |
| 9 | Supply and drawing of 3X4 Sq.mm size FR PVC insulated single core multistrand copper conductor in existing surface / recessed STEEL/PVC conduit as required. | Per mtr | 111.00 | |
| 10 | Supply and drawing of 3X6 Sq.mm size FR PVC insulated single core multistrand copper conductor in existing surface / recessed STEEL/PVC conduit as required. | Per mtr | 144.00 | |
| 11 | Supply and drawing of 4X6 Sq.mm size FR PVC insulated single core multistrand copper conductor in existing surface / recessed STEEL/PVC conduit as required. | Per mtr | 181.00 | |

| IV. Supply &Fixing of approved make Non Modular/Modular type Electrical Fittings | | | | | | |
|--|---|------|----------------------------------|----------------------------------|--|--|
| | A. Non-Modular | | | | | |
| SI. No. | DescriptionOf Work for Non Modular Wiring | Unit | Estimated Unit Rate in Rs. | Quoted Unit Rate in Rs. | | |

| 1 | Supply and fixing of 6A Plug and Switch point on Separate board with G.I switch board of appropriate sizes including provision of earth screw, with 3mm thick bakelite / Phenolic laminated front cover fixed with steel screw and ceiling rose as specified mounted on G.I circular box having front bakelite cover complete with all accessories & Connections. | Each | 199.00 | |
|---|--|------|----------|--|
| 2 | Supply and fixing of 5 pin, 6Amp, 250V flush type socket and 6 Amp 250V flush type switch of above specification on existing board complete with all accessories & Connections. | Each | 133.00 | |
| 3 | Supply & fixing of 16/6A plug & switch (Separate) with G.I switch board of appropriate sizes including provision of earth screw, with 3mm thick bakelite / Phenolic laminated front cover fixed with steel screw of approved make having front bakelite cover complete with all accessories & Connections. | Each | 269.00 | |
| 4 | Supply & fixing of 16/6A plug point (Separate) with G.I switch board of appropriate sizes including provision of earth screw, with 3mm thick bakelite / Phenolic laminated front cover fixed with steel screw of approved make having front bakelite cover complete with all accessories & Connections. | Each | 147.00 | |
| 5 | supply & Installation of 32A DP Switch on <u>Separate board</u> with Non-Modular switch board of appropriate sizes including provision of earth screw, with Non Modular Box, Base & Cover fixed with steel screw as specified including all accesories and connection as per direction of Engineer in Charge. | Each | 432.00 | |
| 6 | Supply & fixing of 63 A 240V ICDP / MCDP main switch with single fuse unit and neutral bar mounted on porcelain base, approved make to be fixed on metallic board of appropriate sizes including provision of earth screw and painted with one coat of red oxide and two coats of D.A gray with 3mm thick bakelite / phenolic laminated front cover fixed with steel screws complete with all accessories and connections including earth connection. (Anchor Make) | Each | 2966.00 | |
| 7 | Supply & fixing of 63 A , 415V ICTPN main switch with Three fuse unit on porcelain base, approved make to be fixed on metallic board of appropriate sizes provision of earth screw with 3mm thick bakelite / phenolic laminated front cover fixed with steel screws complete with all accessories and connections including earth connection. (Anchor/ Havells/L&T/ HPL/ C&S Make) | Each | 4770.00 | |
| 8 | Supply, fixing, erecting, connecting and commissioning of indoor type dust and vermin proof, sheet steel clad ready made, Single door type powder coated wall mounted TPN Distribution Boards of 4 way suitable for 415 V, Three phase, 4 wire 50 Hz AC Supply complete with cable glands with bottom detachable plates for arrangement with bottom cable entry, cable alleys, interconnections etc as below(BDB).Incommer 1 No-63 A, TPN MCB Outgoings-32 A SP MCB- 5 (L&T/ Legrand), 25 A SP MCB- 7 (L&T/ Legrand) | Each | 10723.00 | |

Continued

| 9 | Supply, fixing, erecting, connecting and commissioning of indoor type dust and vermin proof, sheet steel clad ready made, Single door type powder coated wall mounted Distribution Boards of 6 way suitable for 240 V, Single phase, 2 wire 50 Hz AC Supply complete with cable glands with bottom detachable plates for arrangement with bottom cable entry, cable alleys, interconnections etc as below(BDB).Incommer 1 No-63 A, DP MCB Outgoings-32 A SP MCB- 1 (L&T/ Legrand),20 A SP MCB- 3 (L&T/ Legrand) | Each | 2918.00 | |
|----|---|------|---------|--|
| 10 | Supply, fixing, erecting, connecting and commissioning of indoor type dust and vermin proof, sheet steel clad ready made, Single door type powder coated wall mounted Distribution Boards of 8 way suitable for 240 V, Single phase, 2 wire 50 Hz AC Supply complete with cable glands with bottom detachable plates for arrangement with bottom cable entry, cable alleys, interconnections etc as below(BDB).Incommer 1 No-63 A, DP MCB Outgoings-32 A SP MCB- 2 (L&T/ Legrand),20 A SP MCB- 4 (L&T/ Legrand) | Each | 3534.00 | |
| 11 | Supply & fixing of approved make Angle holder / Batton holder in place of ceiling rose without bulb & with sheds, complete with all accessories and connections including earth connection. (Anchor/ Cona Make) | Each | 35.00 | |
| 12 | Supply & fixing of approved make Non Modular type socket type Stepwise Fan Regulator (Anchor/ Cona), complete with all accessories and connections including earth connection. | Each | 300.00 | |
| 13 | Supply & fixing of approved make Non Modular Dingdong type / Parrot type bell (Anchor/ Cona), complete with all accessories and connections. | Each | 160.00 | |
| 14 | Supply & fixing of approved make Non Modular Buzzer (Anchor/ Cona), complete with all accessories and connections. | Each | 130.00 | |
| 15 | Supply & fixing of approved make 1X36W outdoor Street light LED fitting with lamp & 25mm GI pipe for mounting on wall, complete with all accessories and connections. (Philips/ PAC/ Havells/ CG) | Each | 2200.00 | |
| 16 | Supply & fixing of standard earthing : | | | |
| а | i)Confirming to IS 3043 /1987 including supply & fixing of 38mm/ 40mm dia medium duty (IS marked) G.I. pipe 3.0 mtrs long. The pipe shall have 12mm dia perforated holes at 20 cm interval centre to centre upto 2.5 mtrs height from the bottom, upper end fitted / welded G.I. clamp of size 40 x 6 mm with two nos of hole for each side , complete with masonry work for earth pit chamber and S/F of RCC top cover of size 60cm x 60cm x 5 cms | Nos. | 5500.00 | |
| | ii) Excavation of earth pit size 0.75 x 0.75 x 3.0 mtr long. The earth pit shall provided alternative layer of charcoal, salt & good earth around the electrode complete with all accessories. | | | |
| b | Supply & fixing of No. 6 G.I wire from the specified earth busbar to the Main panel board / Main swatch inside the wall at a depth of 30mm by cutting the surface and plaster the cutting portion of wall after laying the wire. G.I. Nuts & Bolts should rigidly fix both the end of the G.I wire. | Mtr | 25.00 | |

| С | Supply & fixing of 25 x 3mm G.I flat from one earth electrode to the other electrode for inter connection between the electrodes. The connection with the earth electrodes must be rigidly fixed by G.I nuts & Bolts. Supply & fixing of one G.I. flat of size 25 x 3 mm from earth pipe to be terminated to earth busbar of same size at wall surface (inner / outer) . Earth busbar included in the scope of supply. | Mtr | 110.00 | |
|--------|--|------|----------------------------------|----------------------------------|
| | B. Modular | | | |
| Sl.No. | Description Of Work for Modular Wiring | Unit | Estimated Unit Rate in Rs. | Quoted Unit Rate in Rs. |
| 1 | Supply and Fixing of 6A Modular Plug point & 6A Modular Switch Point on Separate boardwith Modular switch board of appropriate sizes including provision of earth screw, with Modular Box, Base & Cover and ceiling rose as specified mounted on Modular box including all accesories and connection as per direction of Engineer in Charge. | Each | 641.00 | |
| 2 | Supply and fixing of SP 6A Modular Switch point and 3 pin 6A Modular type socket of above specification on Existing board complete with all accessories & Connections as per direction of Engineer in Charge. | Each | 270.00 | |
| 3 | Supply and Fixing of 6 pin 20A Modular Plug point & 20 Amp Modular Switch point on Separate board with Modular switch board of appropriate sizes including provision of earth screw, with Modular Box, Base & Cover fixed with steel screw including ceiling rose as specified mounted on Modular box including all accessories and connection as per direction of Engineer in Charge. | Each | 633 | |
| 4 | Supply and fixing of 6 pin 20A Modular Plug point on Separate Modular board of appropriate sizes including provision of earth screw, with Modular Box, Base & Cover fixed with steel screw and ceiling rose as specified mounted on Modular box including all accessories and connection as per direction of Engineer in Charge. | Each | 325.00 | |

| D | 200. |
|---|------|
| Г | acc. |

Date: Signature of Tenderer with Seal of the Agency

N.B.:

1 The quoted price in the above format should be inclusive of all taxes & duties including transporting charges & exclusive of GST

2 Conditional offers will not be acceptable.

ANNEXURE - IV

CHECK LIST

| 1 | Earnest Money furnished in shape of DD/Pay Order | Yes/No |
|----|---|----------|
| 2 | Cost of tender document furnished in shape of DD/Pay Order. | Yes/No |
| 3 | Declaration Form. (As per Annexure –I) | Yes/No |
| 4 | Affidavit declaring that Agency/contractor has never been debarred or black listed by any Govt. / PSU / Corporate Sector (Annexure-II) | Yes/No |
| 5 | Quotation of Price in Schedule of price format(Annexure-III) | Yes/No |
| 6 | Check List (As per Annexure-IV) | Yes/No |
| 7 | Copy of GST Registration Certificate submitted | Yes/No |
| 8 | Copy of Work orders in support of having experience on executing Internal Rewiring / Earthing works in Govt./ PSUs /Corporate sectors during the last 2(Two) years. | Yes/No |
| 9 | Copy of tender documents with signature in each page as a token of | Yes/No |
| 9 | acceptance of all terms & conditions of the tender. | 1 63/110 |
| 10 | Whether agreeable to furnish Bank Guarantee (Annexure-V) towards Security Deposit and performance Guarantee as per Clause – 11 of GTCC. | Yes/No |
| 11 | Terms of Payment: Whether agreeable to OPTCL's standard terms of payment as per clause –12 of GTCC | Yes/No |
| 12 | Nature of Price: Firm & exclusive of GST | Yes/No |
| 13 | Cost reduction (Penalty): Whether agreeable to OPTCL's terms of Cost reduction (Penalty) | Yes/No |
| 14 | Validity of Tender: - Whether agreeable to OPTCL's terms of validity of Tender for 120 days from the date of opening of tender. | Yes/No |
| 15 | Contract period: Whether agreeable to rate contract period of 1 yr. (One). | Yes/No |
| 16 | Copy of PAN Card submitted. | Yes/No |
| 17 | Copy of valid MV License from ELBO, Bhubaneswar submitted. | Yes/No |
| 18 | Copies of Income Tax return filed during last 2(two) Financial Years ending on 31.03.2019. | Yes/No |
| 19 | Copies of Audited Annual Accounts / CA certificate for last 2 years ending 31.03.2020. | Yes/No |
| 20 | Copy of GST Annual return for the F.Y. 2019-20 ending on 31.03.2020 | Yes/No |

Signature of the Tenderer With Seal

ANNEXURE - V

PROFORMA FOR COMPOSITE BANK GUARANTEE FOR SECURITY DEPOSIT AND PERFORMANCE GUARANTEE

| This | s Guarantee | Bond | is execu | | | | | P.O | 20 | by | us | the |
|------------------|---|--|--|--|--|--|--|---|--|---|---|--|
| P.S | | | | _ bank at_ Dist. | | | | State | | | | |
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| OP | D WHEREAS TCL Colony OPTCL Hqrs | - Bho | inagar/C | handrase | kharpur/M | 1anch | eswa | | | | | |
| | AND WHER Security, (2) Earthing of PTC Chand agreement a OPTCL, a Co 10% (Ten per | to rele quarte daka a Ind (3) omposi | ease 100 ers at Of and Office to exemp te Bank 0 | % payment PTCL Cold e Building of from perf Guarantee of | t to the coony – Bho gs of OPT formance g of the value | inaga inaga CL F uaran for R | or for ar / Ch Iqrs., tee on s | Rate Con andrasekl Bhubanes furnishing | tract for narpur / war.in to by the C | r Re-v Mano erms o | wirir hes | ng & swar, e said |
| | MOW THERE making paym wiring & E Mancheswa terms of the said agreeme (the Bank') Rsby or would be of any of the | nent of arthing ar, PT said agent as a do her | Security (g of qua C Chanereement a foresaid, reby under (Rupee sed to or s | 2) to release arters at (daka and and (3) to exwe the to except the to expect the total the to | pay the OPTCL of t | olony uilding furnis ne (igains by rea | t to the Park To t | contractor noinagar / OPTCL Herformance (Bank) (In an an any breach | Rate Co Chand qrs., Bh guarante nereinafte nount r ige cause | ontractrasek nuban e in ter er refer not e ed to o | t for har esw ms red exce r suf | r Re- pur / /ar.in of the to as eding ffered |
| 1. | We the due and pays that the amo reason of an said agreemed demand madunder this guan | able un unt clai y bread ent or be the total the | med is don't by the by reason he Bank s | ue by way on said Contraction of the contraction of | ithout any of loss or of loss or of loss or of lost or | demur damag any c failure regard s gua | merely merely merely the cause of the cause | sed to or su terms or co erform the s amount due | d from the offered be onditions and agreed any paya tricted | e OPT by the contait ement. able by to | CL s OPT ned Any | stating CL by in the such |
| 2. | We the money so de or proceeding present being | mande g institu | uted/pend | nstanding ar ing before | ny dispute d | or disp | utes ra | | Contract | tor(s) ii | n an | y suit |
| | The payment there under a | | | | | | | | | | pay | ment |
| 3. | contained sh performance | of the | main in f said agree | full force a ement and the | and affect de hat it shall d | uring continu | the pe | so enforce | would be able till a | taker Il the d | n fo ues | r the of |
| | the OPTCL udischarged of Certifies that by the said C | or till N the ten | Managing ms and co | Director, (onditions of | ODISHA Po | OWEF greem | R TRA ent hav | NSMISSION ve been fully | ORP(| ORATI | ON | LTD. |

| | Unless a | demand or claim under this guarantee is made on us in writing on or before the (Date) we shall be discharged from all liability under this guarantee |
|----|--|--|
| | thereafter | · |
| 4. | vary any of said Convariations omission any such have effect | liberty without our consent and without affecting in any manner our obligations hereunder to of the terms and conditions of the said agreement or to extend time of performance by the tractor(s) and we shall not be relieved from our liability by reason of any such or extension being granted to the said Contractor(s) or for any forbearance, act or on the part of the OPTCL or any indulgence by the OPTCL to the said Contractor(s) or by matter or thing whatsoever which under the law relating to sureties would but this provisions at of so relieving us. |
| 5. | | is guarantee will not be discharged due to the change in the name, style and constitution of and Contractor(s). |
| 6. | We | e during its currency except with the previous consent of the OPTCL in writing. |
| 7. | | Bank further agree that this guarantee shall also be at our place of business at Bhubaneswar branch (Indicate the name of the branch) in the disha. |
| 8. | Not Wi | th Standing Clause: |
| | 1. | Our liability under the Bank Guarantee is restricted to ` |
| | 2. | This Bank Guarantee shall be valid upto |
| | 3. | We are liable to pay the guaranteed amount or any part thereof under this Bank |
| | | Guarantee only and only if you serve upon us at Bhubaneswar branch (Indicate the detail |
| | | address of the branch) a written claim or demand or before.) |
| Da | ted the | of |
| Wi | tness:(Wit | h signature, name & address) |
| 1. | | |
| 2. | | |
| | | Pau. |
| | | For(Indicate the name of Bank, |