

SPECIAL CONDITIONS

1. GENERAL REQUIREMENTS

The L.T. installation shall generally be carried out in conformity with the requirements of the Indian Electricity Act, 1910 as amended upto date and the Indian Electricity Rules, 1956 as amended upto date framed there under, the relevant regulations of the Electric Supply Authority concerned, and also with the specifications laid down in the Indian Standard I.S. 732-1963 Code of Practice (revised) for Electrical Wiring Installations (System voltage not exceeding 650 volts) and I.S. 2309-1969 Code of Practice for the protection of Buildings and Allied Structures against lightning. The wiring shall also be according to the specifications of Local Authority and as per N.E.C.

Electrical Installation work shall be carried out only by reputed Contractor/Contractors holding valid contractors' licence issued by the concerned State Government as applicable to the voltage grade and nature of electrical installation work in accordance with Rule 45 of Indian Electricity Rules, 1956 with its latest amendments. Name/Address of the firm, registration & licence no. etc (issued by the Authorities) shall be furnished along with the tender. The work shall also be carried out under the direct supervision of a person holding a certificate of competency and by a person holding Licence/permit issued or recognised by the concerned State Government.

All water supply, sanitary installations, sewerage & drainage works shall be executed through reputed sanitary contractors. Particulars of the firm viz. Name & address of the firm, registration & licence no. etc (issued by the authorities) shall be furnished along with the tender.

The work shall be carried out by skilled and licensed plumbers/technicians in a workman like manner complying in all respects with the relevant by-laws of the Municipal or of the local Authorities under whose jurisdiction the work has to be executed.

2. MATERIALS

All materials, fittings, appliances, used in electrical installations, shall conform to Indian Standard Specifications wherever these exist. A list of approved materials is attached afterwards. Materials not included in the list shall be got approved by Owner/Architects prior to actual use.

3. ELIGIBILITY, LICENCE, SUPERVISION

Only Contractor having valid contractors' licence, issued by the concerned State Government, for doing the category of work as per tender shall be eligible for award of contract. A xerox copy of such licence shall be enclosed with the contract offer.

All work shall be carried out under direct supervision of Licensed Electrical Supervisor and Tradesman, certified by Electrical Authority for the requisite part.

The Contractor shall ensure that all the above statutory licences are renewed before they lapse, during tenure of this work.

Owner/Architects shall have the right to call for verification of all licences as and when felt necessary by them or their authorized representative.

The licensed supervisor shall be available at site at all reasonable hours to receive instruction from the Owner/ Architects.

4. TESTING, TEST CERTIFICATE

- 4.1 4.1 The contractor shall have to submit drawing(s) for panel boards G.A and SLD drawing for each floor for each system like light, fan, socket outlets, power points, telephone points, computer terminals etc in triplicate and have these approved by the Owner/Architects before undertaking fabrication/manufacture.
- 4.2 The panel boards shall be accepted on the basis of inspection and testing by the Owner/Architects at the manufacturer's/fabricator's workshop and on the basis the approved drawings. Regardless of the above the Contractor shall remain committed to the specification and they are not be absolved of any non-performance or short fall.
- 4.3 The Contractor shall have to furnish manufacturer's test certificate, if asked by the Architect for particular material/materials brought at site for incorporation in work.
- 4.4 The Contractor shall have to carry out insulation tests, continuity tests, earth resistant test and any other tests required as per specification and furnish test certificates to Owner/Architect the same in quadruplicate duly signed by them with their licence no supervisors licence no and his signature certifying the above.

5. LICENSEES REQUIREMENTS ETC

The contractor should ensure that all installations conform to Local/Statutory Regulations and requirements. In case of any deficiency/discrepancy or contradictions found in the Technical Specifications or Schedule of Items, these shall be immediately brought to the notice of the Owner/Architect and the same should be got modified before execution of the work.

6. EFFECTING CONNECTION & COMMISSIONING, ELECTRICAL INSPECTION ETC

- 6.1 The Owner will apply for the Service Connection/energisation of the installation after completion. However, all necessary forms required by Electrical Authority are to be collected/arranged and to be properly filled up by the Contractor and (submitted to Authority after due endorsement by the Owner along with necessary fees, if required. Owner will reimburse the necessary/statutory fees paid by the Contractor on his behalf, on production of the money receipt of the Inspecting Authority/ Authority).
- 6.2 The Contractor will have to carryout the formalities with the Licensee including negotiations for the same with the Licensee, for the subject installation, as necessary.
- 6.3 The Contractor has to take all initiative/responsibility towards approval of the electrical installation and permission to switch on power supply and get the installation passed by the Electrical Inspector/Local Authority in all respects including any variations, alterations, and modifications after instructions of Licensee/Inspector/ Authority, if any for permanent energisation. All the above are in the Contractor's scope of work and the necessary cost for the same should be included in the rates quoted by them. No other payment shall be made whatsoever in this connection except the payment of the statutory fees against production of documentary evidences only.
- 6.4 The Contractor shall submit to the Electrical Authority necessary Test Forms, Electrical Layout Drawings. Single Line Diagram, etc as required, for approval and permanent energisation of the installation without delay.

7. COMPLETION DRAWING

On completion of work, the contractor shall submit three copies print along with one reproducible transparency/print for each "as-built" drawings as detailed in the specifications, along with final bill, if not submitted earlier.

- a) Electrical Layout Drawing for each floor indicating location of electrical points, switch boards, Distribution boards, Main switch board , socket outlets, power points, telephone points (Internal & external), computer terminals, UPS & raw power supply terminals, floor wire, starting from the point of supply to the terminals including earthing as necessary.
- b) Plan with cable routes for L.T Panels, switches, MCB DBs (UPS & Raw power etc), telephone lines from CT boxes to terminals, computer lines from HUB etc.
- c) Control Schematic diagram drawings.
- d) Single Line Diagrams with bill of quantities, cable schedule etc.

8. SAFETY CODE

The Safety Code will be as per Indian Electricity Rules 1956 and subsequent amendments made upto date, and as per various prevailing I.S. Codes of Practice for Electrical Installation.

Temporary Electrical Wiring shall be done in the manner as advised by the Owner/Architect with necessary supports when drawn overhead and proper clamping/fixing and should conform to requirement of Indian Electricity Rules, various I.S. Codes of Practice for Electrical Installation and Local Regulations.

SPECIAL CONDITIONS OF CONTRACT

1.1 General

- 1.1.1 These Special Conditions of Contract supplement the General Instructions, General Conditions of Contract, Bill of Quantities and basic rates and Technical Specifications and tender drawings enclosed thereto, and shall be considered as part of the Tender Papers. Where the provisions of these Special Conditions of Contract are at variance with General Conditions of Contract, the Provisions of these Special Conditions of Contract shall prevail.
- 1.1.2 The several documents forming the tender are to be taken as mutually complementary to one another. Detailed drawings shall be followed in preference to small scale drawings and figured dimensions in preference to scaled dimensions.
- 1.1.3 If there are varying or conflicting provisions in the documents forming part of the contract, the Engineer-In-Charge shall be the deciding authority with regard to the intentions of the provisions and his decision shall be final and binding on the contractor.
- 1.1.4 The Employer reserves the right to exclude any of the Schedule items on reasons of the rates not being reasonable or subsequent change of design for evaluation of tender and deciding the contract during execution or work.
- 1.1.5 The Contractor may be required to carry out any addition or alteration work other than the specified in the schedule of work / bill of quantities as and when required, by the 'Employer' within the completion period of the project.

1.2 Scope of Work

- 1.2.1 The works to be governed by this contract shall cover delivery and transportation upto destination, safe custody at site, insurance, erection, testing and commissioning of the entire Electrical works.
- 1.2.2 The works to be under taken by the contractor will interalia include the following:
- i) Preparation of detailed 'AS BUILT' drawings of electrical wiring installation, cable laying, erection/fixing of switchgear etc.
 - ii) Pre-commissioning tests as per relevant standard specifications, code of practice, Acts and Rules.
 - iii) Warranty obligation for Circuit Breaker, CT, Cables, Capacitor etc to be supplied by the Contractor.
 - iv) All other earthwork and masonry works required to be done in connection with the electrical works.

1.3 Execution of work

- 1.3.1 All the works to be carried out as per the approved drawing and direction of the Engineer- In-Charge.
- 1.3.2 Water & Power supply: - It will be provided by IACS free of cost for the beneficial use of IACS only. However, the contractor shall have to arrange for utilizing the same at their cost and risk.

1.4 Period of Completion

- 1.4.1 Time is the essence of contract. Therefore, timely completion of project is very important. Normally no extension of time will be given. However, on account of delay if any, for the reason beyond the control of the contractor, necessary time extension may be granted if applied for by the contractor prior to the expiry of schedule time of completion.
- 1.4.2 No price variations shall be admissible on the contract rate for any item during the entire period of contract including extension periods. *The Contractor shall not have any claim whatsoever in this regard except statutory variation of duties and Taxes imposed by Govt. of India/State Govt subsequent to the offer submitted by the contractor.*

1.5 Quality of materials and works

All the materials to be used in the execution of the contract shall be of the approved quality and of the class most suited for the purpose specified. The work shall also conform to the following Acts, Rules and Orders:

- i) Indian Factories Act
- ii) Indian Electricity
- iii) National Building Code
- iv) National Electrical Code
- v) Indian Standard Specifications

- 1.5.1 All erection work shall be of the best workmanship & quality to the entire satisfaction of the Employer. The Contractor shall ensure that the equipment and services under the scope of this contract whether manufactured or performed within the Contractor's premises or at his subordinate's premises or at the work site or at any other place are strictly in accordance with the provisions of this contract. For this purpose, if necessary the Contractor shall adopt necessary quality assurance programme to control such activities at all stages.

1.6 Electrical License

- 1.6.1 The work shall be carried out only by a Contractor holding a valid license issued by the State Government for carrying out the installation work of a voltage classes involved, under the direct supervision of the persons holding valid

certificates issued or recognized by the State Government. The tenderer should furnish with his tender the particulars of the license with validity period held by him. The successful tenderer shall furnish the names and particulars of certificates of competency of supervisors and workmen to be engaged for carrying out this work.

1.6.2 The contractor shall not be allowed to engage sub-contractor directly or indirectly unless it is officially permitted by IACS.

1.7 Inspection

1.7.1 The Contractor shall provide without any extra cost to the Employer all materials, equipment, tools, labour and maintenance of every kind which the Employer's Inspecting Engineer may consider necessary for any test and examination to be made at the Contractor's or the Sub-Contractor's (if approved) premises and at site and shall pay all cost attended thereon.

1.7.2 All the equipment and materials shall be tested / inspected by the Employer or its authorized Inspecting Engineer and approved before they are installed / used in the execution of the works covered in the contract. If the Contractor uses any equipment / materials without the prior approval of Employer, those are liable to be rejected. The Contractor shall furnish, as and when demanded by the Engineer-in-Charge the T.C. (Test Certificate) and G.C (Guarantee Card) for verification of quality and make of the materials.

1.7.3 The Inspecting Engineer or his authorized Representative shall have at all times access to the Contractor's premises and shall have the power to

- i) Inspect and examine the materials and workmanship of the work at any time at the site of erection
- ii) Reject any part of the work submitted by the Contractor as not being in accordance with the contract.
- iii) Reject the whole of the work including equipment tendered for inspection if after the inspection of such portion as he may, in his discretion think fit he is justified that the same is unsatisfactory.
- iv) Mark the rejected equipment with a rejection mark so that the same may be easily identified
- v) Re-inspect at the time of erection at site any equipment both previously inspected and approved by the inspecting Engineer at the Contractor or Sub-contractor's (if approved) premises. Notwithstanding any approval given earlier, the Contractor shall make good such rejections made based on such re-inspection at site to the satisfaction of the Engineer.

- vi) The decision of the Inspecting Engineer as regards to the acceptance or rejection of equipment / work shall be final and binding to the Contractor.

1.7.4 Consequence of Rejection

On the equipment / assemblies being rejected by the Inspecting Officer of the Employer at destination of the Contractor shall replace such rejected equipment/assemblies of the forthwith but in any event not later than a period of 2 (two) weeks in the case of minor equipment and 4(four) weeks in case of a major equipment from the date of rejection. The Contractor shall bear all the costs of replacement including freight, etc., but without being entitled to any extra time on this account. The decision as to whether the equipment is to be classified as Minor or Major for the purpose of this clause shall be that of an Engineer and is not questionable.

1.8 Installation

- 1.8.1 All works connected with and inclusive of installation and erection under this contract shall be done in accordance with the standard and established methods of installation and erection of electrical equipment and shall comply with relevant Indian Electricity Rules, National Electrical Code, BIS Codes of Specifications and Standards. The work shall also be strictly in accordance with the instructions / recommendations of the manufacturers. **The equipment shall be leveled carefully before being fixed finally in position. All fragile and sensitive equipment shall be protected adequately and handled carefully during installation and erection.**

1.9 Commissioning Tests

- 1.9.1 As soon as the installations are ready for commissioning, the Contractor shall arrange for all the tests/ inspection as required by the relevant ISS and / or IE Rules and advise the Employer and others concerned. Employer shall depute their Inspecting Officer for witnessing the tests and to carry out inspection independently and also jointly with other concerned agencies where ever necessary and only after the installation passes the required tests and inspection, it should be commissioned / energized. The contractor shall arrange all testing equipments/apparatus/instruments as will be required for conducting the tests without any extra cost.
- 1.9.2 Visual Inspection shall include checks for satisfactory workmanship, all connections, painting, cleanliness of all fittings etc., and compliance with Indian Electricity Rules.
- 1.9.3 The ammeters, voltmeters and energy meters shall be checked for their calibration, scale, accuracy, etc. for compliance with the specified requirement.
- 1.9.4 (i) Manufacturer's test Certificates shall be furnished on demand.

- (ii) Certificates of compliance to routine test shall also be furnished.
- (iii) Routine tests certificates are required to be submitted.

1.9.5 All cables shall be tested at manufacturer's works in compliance with relevant ISS. All cables and connections after erection shall be tested as required by the employer for :

- i) Pressure Test
- ii) Insulation Resistance Test

1.9.6 Earth resistance shall be measured separately for each earth electrode and when they are connected together and to the equipment should be recorded.

2.0 Warranty: - The contractor shall stand guarantee that all the equipments and the works executed under this contract shall be free from all defects and faults in materials, design, workmanship and manufacture and shall be acceptable standards for the contracted works and in full conformity to the technical specifications, drawings and other contract stipulations for a period of 12 months from the date of completion of the project or 15 months from the date of supply of materials whichever is earlier.

3.0 Completeness of tender: -

All sundry fittings, assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections as required, and all other sundry items which are useful and necessary for proper assembly and efficient working of the various component of the work shall be deemed to have been included in the tender whether such items are specifically mentioned in the tender documents or not.

4.0 Works to be done by the Contractor: - Unless and otherwise mentioned in the tender documents, the following work shall be done by the contractor, and therefore, their cost shall be deemed to be included in their tender cost

- i) Cutting and making good all damages caused during installation and restoring the same to their original finish.
- ii) Sealing of all floor openings provided by him for pipes and cables from fire safety point of view after laying of the same
- iii) Painting at site of all exposed metal surfaces of the installation other than pre-painted items like switch-gear, transformer etc. damages to finished surfaces of these items while handling and erection shall however be rectified to the satisfaction of the Engineer In-Charge.

5.0 Tools for handling and erection: - all tools and tackles required for handling of equipments and materials at site of works as well as for their assembly and erection and also necessary testing instruments shall be responsibility of the contractor.

6.0 Care of Building:

Care shall be taken by the Contractor to avoid damage to the building during execution of his part of the work. He shall be responsible for repairing of all damages and restoring the same to their original finish at his cost. He shall also remove at his cost all unwanted and waste materials arising out of his work from the site.

7.0 Structural Alterations to Buildings

- i) No structural member in the building shall be damaged / altered, without prior approval of the competent authority through the Engineer-in-charge.
- ii) Structural provisions like openings, cutouts, if any, provided by the department for the work, shall be used. Where these require modifications, or where fresh provisions are required to be made, such contingent works shall be carried out by the Contractor at his cost.
- iii) All such openings in floors provided by the Department shall be closed by the Contractor after installing the cables / conduits / rising mains etc. as the case may be, by any suitable means as approved by the Engineer-in-charge without any extra payment.
- iv) All chases required in connection with the electrical works shall be provided and filled by the Contractor at his own cost to the original architectural finish of the buildings.

- 8.0** Any concealed work must be given enough opportunity for inspection by the employer and after clearance of the said work concealment can be done

GENERAL TERMS AND CONDITIONS

1. Submission of a tender/quotation by a tenderer/ quotationer implies that they have inspected and examined the site and its surroundings and satisfied themselves as to the nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves, obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender.
2. The tenderer shall be responsible for arranging and maintaining at his own cost all materials, tools and plants, water electricity, access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract document.
3. The tender/quotation for the work shall remain open for acceptance for a period of thirty days from the date of opening of tender/quotation. If any tenderer withdraws his tender before the said period or makes any modifications in the terms and conditions of the tender which are not acceptable to IACS, then the IACS shall without prejudice to any other right or remedy be at liberty to forfeit 50% of the said earnest money as aforesaid.

4. All conditions/terms listed under "Terms and conditions" are applicable for all tenders/ quotations.
5. The successful tenderer /contractor, on acceptance of his tender by the accepting Authority, shall, within 7 days from the stipulated date of start sign this contract/agreement.
6. The Director, Indian Association for the Cultivation of Science (IACS) does not bind himself to accept the lowest or any tender and reserves to himself the authority to reject any or all tenders received without the assignment of any reason.

General Rules and Directions

1. The tenderer shall fill in the rates both in words and figures. The amount against each item is also to be filled in. In case of any discrepancy, the rates quoted by contractor in words shall be taken as correct.
2. Sales Tax, purchase tax, turnover tax or any other tax on material in respect of this contract shall be payable by the contractor. IACS will not entertain any claim whatsoever in respect of the same. The quoted rate shall be inclusive of all taxes and duties i.e. cess, surcharge etc. Nothing extra shall be paid in addition to the quoted rate.
3. Canvassing whether directly or indirectly in connection with tenders is strictly prohibited and the tender submitted by the contractor who resorts to canvassing will be liable to rejection.
4. The contractor whose tender is accepted will be required to furnish by way of Security Deposit for the fulfillment of his contract, an amount equal to 10% of the tendered value of the work. The Security Deposit will be collected by deductions from the running bills and Final bill of the contractor at the rates mentioned above and the earnest money if deposited in cash at the time of tenders will be treated as part of the Security Deposit.
5. On acceptance of tender, the name of the accredited representative of the contractor who would be responsible for taking instructions from the Engineer in Charge shall be communicated in writing to the Engineer in Charge.
6. All the works shall be carried out as per CPWD specification corrected up to date and Indian Electricity rule. Where CPWD specification is silent Indian standard specifications of B.I.S./ Specification laid down by IACS is to be followed.
7. The time allowed for execution of the work or the extended time in accordance with these conditions shall be the essence of the contract.
In case of any event causing delay for which the contractor is not responsible, the contractor shall immediately give notice thereof in writing to the Engineer

in charge but shall nevertheless make best endeavors to prevent or make good the delay. The Director, IACS may consider the notice and allow suitable extension of time for completion of work.

8. The contractor shall submit "running account bill" and final bill in triplicate supported by detailed measurements and shall provide necessary assistance, Labour and tools for checking the measurement and quality of work.
9. The contractor shall execute the whole and every part of the work in the most substantial and workman like manner both as regards materials and otherwise in every respect in accordance with specifications. Unless otherwise given in the Contract documents the specification will mean standard specification of Central Public Works Department corrected up to date, Bureau of Indian Standard Specifications, and/or any other published standard or code.
10. The Engineer in Charge shall have the power to make alteration in, omission from, additions to, or substitutions for the original specifications drawings, design and instructions that may appear to him to be necessary or advisable.

The rates for such altered, additional or substituted work shall be determined by the Engineer in Charge as under.

- (i) Rate entered in the schedule of rates mentioned in the award letter Plus/minus the percentage by which the tendered amount of the works awarded is higher or lower than the corresponding estimated amount.
 - (ii) Market rates.
11. Deviation limit for individual item, trade and contract as a whole, is 25% (twenty five percent). No claim whatsoever will be entertained in this regard.
12. The contractor shall provide all necessary superintendence during execution of work and as long there after as may be necessary for proper fulfilling of the obligations under the contract.
13. Security deposit will be refunded to the contractor if no complaint is pending on Record till after 6 (six) months after completion of the work and no labour complaint is pending against the contractor in respect of the work.
14. The contractor shall pay their workers as per the provisions of Minimum wages Act fixed and notified by the Government from time to time.
 - (i) No person below the Age of 14 years shall be employed to act as a workman.
 - (ii) First AID Box shall be made available by the contractor at all work sites.
 - (iii) The contractor shall provide all safety measures to his workmen like working platform, suitable scaffolding, gangways, ladder, helmets, gumboots,

gloves safety belts, insurance coverage etc. according to the situation and nature of work.

(iv) In every case where compensation is to be paid to a workman employed by the contractor, as per provisions of Workmen's Compensation Act. The contractor shall arrange to pay such compensation in full and IACS will recover the same from the dues and/or security deposit of the contractor and make arrangement to pay the same to the concerned.

15. In case of any dispute arising out of this contract during the progress of the work or after the cancellation, termination, completion or abandonment, the decision of the Director, IACS, shall be final and binding on the contractor.

It is also a term of the contract that if the contractor does not raise any claim in writing within 90 days from the date of cancellation, termination, completion or abandonment, the claim of the contractor shall be deemed to have been waived and absolutely barred and IACS shall be discharged and released of all its liabilities under the contract in respect of these claims.