



**GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT
TRIVANDRUM**

NIT No.52/EE/E-TVM/2026-27

**Name of Work: MOEI & Fans i/c water supply pump sets, Street lights for 12 Nos. Type-V quarters, 28 Nos. Type-IV Quarters and 54 Nos. Type-III quarters under GPRA at Melethumele, Trivandrum.
SH: Providing manpower services for day to day operation of electrical services.**

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Certified that this NIT contains 40 Pages only

NIT Approved for ₹19,08,837/-

PART -A

**INFORMATION'S AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERING,
CPWD-6 AND 7, PERFORMANCE SECURITY
AND BANK GUARANTEE BOND**

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR e-TENDERING FORMING PART OF NIT AND TO BE POSTED ON WEB SITE

The Executive Engineer -Electrical, Trivandrum, CPWD, CGO Complex, Trivandrum (Email id: eetvmtced.cpwd@gov.in) on behalf of the President of India invites online percentage rate bids from approved and eligible Buildings & roads category contractors of CPWD of appropriate class (erstwhile composite/building/infrastructure) for the following work(s):

NIT No.	52/EE/E-TVM/2026-27
Name of Work & Location	MOEI & Fans i/c water supply pump sets, Street lights for 12 Nos. Type-V quarters, 28 Nos. Type-IV Quarters and 54 Nos. Type-III quarters under GPRA at Melethumale, Trivandrum. SH: Providing manpower services for day to day operation of electrical services.
Estimated Cost put to bid	₹19,08,837/-
Earnest Money	₹38,177/-
Period of Completion	12 (Twelve) Months
Last date & time of submission of bid, copy of receipt for deposition of original EMD and other document as specified in the NIT	Up to 15:00 Hrs on 03.09.2026
Time & date of opening of bid.	15:30 Hrs on 03.09.2026

1. The intending bidder must read the terms and conditions of **CPWD-6** carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
2. Information and instructions for bidders posted on website shall form part of bid document.
3. The bid document consisting of plans, Specifications, Schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website www.etender.cpwd.gov.in or www.cpwd.gov.in free of cost.
4. But the bid can only be submitted after deposition of original EMD either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission (the EMD document shall only be issued from the place in which the office of receiving division office is situated) and uploading the mandatory scanned documents such as Insurance Surety Bonds, Account Payee Demand draft or Bankers Cheque or Fixed Deposit Receipts or/and Bank Guarantee (for balance amount as prescribed) from any of the Commercial Bank towards EMD in favour of Executive Engineer as mentioned in NIT, receipt for deposition of original EMD to division office of any Executive Engineer (including NIT issuing EE/ AE), CPWD and other documents as specified.

A part of earnest money (EMD) is acceptable in the form of bank guarantee also. In such cases, 50% of earnest money or Rs. 20 Lakh whichever is less, will have to be deposited in shape prescribed above and balance can be accepted in form of Bank Guarantee issued by a Commercial bank. The bank guarantee submitted as a part of Earnest Money shall be valid for a period of 90 days or more from the last date of submission of the tender.

5. Those Contractors who are not registered or have not updated their profile on the website mentioned above, are required to get registered/update their profile beforehand. The necessary training materials including the videos with step to step process are available on download section of <https://etender.cpwd.gov.in>.
6. The intending bidder must have valid class-III digital signature certificate with encryption key (combo type) to perform any operations /transactions on the e-tendering portal/website and the bidder should download and install the eMSigner on their system as per instructions available on download section of <https://etender.cpwd.gov.in>.

7. On the opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
8. Contractor can upload documents in JPG format and PDF format. Bidder should ensure that the document uploaded is legible and full documents page is properly scanned.
9. Contractor must ensure to quote the percentage rate in the prescribed column(s) meant for quoting rate in figures appears in yellow colour and the moment rate is entered, it turns sky blue.

In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).

However, if a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

10. ~~Pre-bid conference shall be held off-line or and through online platform with intending bidders by the office of Chief Engineer, CPWD, Trivandrum at **** on **** (Meeting Link will be shared on request through e-mail in case of online prebid meetings). Clarifications can also be sought/communicated through e-mail addressed to cpwd143968@yahoo.co.in / eetvmteed.cpwd@nic.in to the Executive Engineer-Electrical, CPWD, Trivandrum before **** Hrs on ****. As a result of pre bid conference, certain modifications may be issued to the bid documents through corrigendum which will be issued in the website accordingly~~

~~To be filled in by the EE in consultation with NIT authority.~~

~~Corrigendum will be issued within the next 3 days after the prebid meeting. Any changes in the conditions /BoQ will be reflected in the corrigendum. Bidders may submit their bids only after uploading of the corrigendum. Sufficient time of at least 14 days will be given to the bidders after issue of the corrigendum. Even if there is no change on the conditions/BoQ/specifications of the tender, a NIL corrigendum will be issued to indicate that the bidder can go ahead and submit their bids. Bids submitted before the issue of the corrigendum will be rejected unless otherwise the corrigendum issued is a NIL corrigendum, with no changes in conditions/BoQ.~~

11. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.
12. If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and the hard copies as submitted by the lowest bidder, the bid shall become invalid.

13. **List of documents to be scanned and uploaded within period of bid submission.**

- 13.1. Insurance Surety Bonds, Account Payee Demand draft, Fixed Deposit Receipts, Bankers Cheque or Bank Guarantee (as prescribed) from any of the Commercial Bank drawn in favour of Executive Engineer-Electrical, CPWD, Trivandrum against EMD.
- 13.2. Copy of receipt for deposition of original EMD issued from division office of any Executive Engineer, CPWD. (The EMD document shall be issued from the place in which the office of receiving division office is situated).
- 13.3. Enlistment Order of the Contractor
- 13.4. GST Registration Certificate, if already obtained by the bidder.

If the bidder has not obtained GST registration **as applicable**, then he shall scan and upload following undertaking along with bid documents.

"If work is awarded to me, I/We shall obtain GST registration certificate **as applicable** within one month from the date of receipt of award letter or before release of any payment from CPWD, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on account of the work executed and/or for any action taken by CPWD or GST Department in this regard."

- 13.5. Copy of certificate of ERP training through any of the CPWD Regional Training Institutes (RTIs) at Delhi, Mumbai, Chennai and Kolkata, National CPWD Academy (NCA) Ghaziabad, Training arranged by Graduates of ERP "Train the Trainers Programme" conducted by NCA, Ghaziabad or through any other special training arranged by ERP unit of CPWD "Train the Trainers

Programme” conducted by NCA, Ghaziabad or through any other special training arranged by ERP unit of CPWD.

For newly enlisted CPWD contractor, who has not obtained the ERP certificate, then in such a case the bidder shall scan and upload following under taking along with other bid documents.

“If work is awarded to me, I/we or our authorized representative shall take compulsory ERP training through any of the CPWD Regional Training Institutes (RTIs) at Delhi, Mumbai, Chennai and Kolkata, National CPWD Academy (NCA) Ghaziabad, Training arranged by Graduates of ERP "Train the Trainers Programme" conducted by NCA, Ghaziabad or through any other special training arranged by ERP unit of CPWD "Train the Trainers Programme" conducted by NCA, Ghaziabad or through any other special training arranged by ERP unit of CPWD, within two months from the date of issue of intent letter, failing which a recovery of Rs.10,000/- per week shall be made from the R/A bill without giving any show cause notice in this regard.”

Note: Training will be valid only when non enlisted contractor is registered in LMS of ERP and certificate is issued through LMS of ERP

- 13.6. Valid electrical license issued by the state in the name of the contractor.

OR

Undertaking that valid electrical license issued by the state will be obtained at the time of execution of electrical work or we will associate contractors having valid electrical license of eligible class issued by state.

- 13.7. Copy of PAN card of the bidder

Note: The bidders should submit all the require documents for above listed eligibility criteria, failing **which** their bid will be treated as invalid or cancelled.

14. List of Documents to be submitted after acceptance along with performance guarantee.

- 14.1. Licenses/ Registrations or proof of applying for labour licenses, registration with EPFO, ESIC & BOCW Welfare Board. GST registration within 30 days or before passing the first running bill.
 - 14.2. Any other mandatory documents specified elsewhere in the bid document
15. Tendered Amount quoted by the contractor is final and inclusive of GST etc., and nothing extra shall be paid. Necessary deduction for GST shall be made as per prevailing rules.
16. The bid become not eligible if bidder does not upload scanned copies of all the documents stipulated in the bid document (including GST Registration and as stipulated in the bid documents).
17. The Executive Engineer receiving EMD in original form shall examine the EMD deposited by the bidder and shall issue a receipt of deposition of earnest money to the agency in a given format uploaded by tender inviting EE. The receipt may be issued by the AE(P)/AE/AAO.
18. The tender inviting Executive Engineer will call for original EMD of the L-1 tenderer from EMD receiving Executive Engineer immediately.

**Executive Engineer (E)
Trivandrum, CPWD,
Thiruvananthapuram – 695522**

INFORMATION AND INSTRUCTIONS FOR EXECUTIVE ENGINEER for e-TENDERING.

1. The Executive Engineer of any division/projects or any other officer designated by CPWD Directorate from time to time are authorized to receive the original EMD for tender or tenders of any other division/projects.
2. The NIT approving authority/ EE at the time of issue of NIT shall also fill and upload the following prescribed format of receipt of deposition of original EMD along with NIT:

Receipt of deposition of original EMD	
(Receipt No. / date)	
1. Name of work: MOEI & Fans i/c water supply pump sets, Street lights for 12 Nos. Type-V quarters, 28 Nos. Type-IV Quarters and 54 Nos. Type-III quarters under GPRA at Melethumele, Trivandrum. SH: Providing manpower services for day to day operation of electrical services. 2. NIT No: 52/EE/E-TVM/2026-27 3. Estimated cost: ₹19,08,837/- 4. Amount of Earnest Money Deposit: ₹38,177/- 5. Last date of submission of bid: Up to 15:00 Hrs on 03.09.2026 (*To be filled by Tender inviting authority/NIT approving authority at the time of issue of NIT and uploaded along with NIT) 1. Name of Contractor# 2. Form of EMD # 3. Amount of Earnest Money Deposit # 4. Date of submission of EMD #	Signature, Name and Designation of EMD receiving officer along with Office stamp
# To be filled by EMD receiving EE/DDH	

3. The Executive Engineer receiving EMD in original form examines the EMD deposited by the bidder and issues a receipt of deposition of earnest money to the agency in a given format uploaded by tender inviting authority. The receipt may be issued by any subordinate gazetted authority authorized by EE /Engineer-in-charge/DDH
4. The Executive Engineer receiving original EMD also intimates tender inviting Executive Engineer about deposition of EMD by the agency by email/fax/telephonically.
5. The original EMD receiving Executive Engineer releases the EMD to unsuccessful bidders after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier, after verification from the e-tendering portal website (<https://etender.cpwd.gov.in> >closed Tender>all that the particular contractor is not L-1 tenderer and work is awarded.
6. The tender inviting Executive Engineer will call for original EMD of the L-1 tenderer from EMD receiving Executive Engineer immediately.

**GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT
NOTICE INVITING e-TENDER**

Online Percentage rate bids are invited on behalf of President of India from approved and eligible composite/building/infrastructure category contractors of CPWD for the work of: **MOEI & Fans i/c water supply pump sets, Street lights for 12 Nos. Type-V quarters, 28 Nos. Type-IV Quarters and 54 Nos. Type-III quarters under GPRA at Melethumale, Trivandrum. SH: Providing manpower services for day to day operation of electrical services.**

The enlistment of the contractor should be valid on the last date of submission of bids.

In case the last date of submission of bid is extended, the enlistment should be valid on the original date of submission of bids.

1. The work is estimated to cost **₹19,08,837/-**. This cost, however, is given merely as a rough guide.
2. Agreement shall be drawn with the successful bidders on prescribed Form No. CPWD 7 which is available as a Govt. of India Publication and also available on website **www.cpwd.gov.in**. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
3. **The time allowed for carrying out the work will be 12 (Twelve) Months from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.**
4. The site for the work is available.
5. The bid document consisting of plans, specifications, the schedules of quantities of various types of items to be executed and set of terms and conditions of the contract to be complied with and other necessary documents except standard general conditions of contract form can be seen on website **https://etender.cpwd.gov.in** or **www.cpwd.gov.in** free of cost.
6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.
8. **Deleted**
9. Online bid documents submitted by intending bidders shall be opened on those bids whose EMD and all other documents are in order.
10. Earnest Money in the form of Insurance Surety Bonds, Account Payee Demand draft, Fixed Deposit Receipts, Bankers Cheque or Bank Guarantee (for balance amount as prescribed) from any of the Commercial Bank drawn in favour of **Executive Engineer (Electrical), CPWD, Trivandrum** shall be scanned and uploaded to the e-Tendering website within the period of bid submission. The original EMD should be deposited either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission. The EMD receiving Executive Engineer (including NIT issuing EE/AE) shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format (enclosed) uploaded by tender inviting EE in the NIT.

A part of earnest money is acceptable in the form of bank guarantee also. In such case, minimum 50% of earnest money or Rs. 20 lacs, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee of any Commercial bank having validity for 90 days or more from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders.

The earnest money given by all the tenderers except the lowest tenderer shall be refunded immediately after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier.

Copy of Enlistment Order and other documents as specified in the **NIT** shall be scanned and uploaded to the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in **NIT** shall have to be submitted by the lowest bidder within a week physically in the office of tender opening authority. Online bid documents submitted by intending bidders shall be opened only of those bidders, whose original EMD deposited with any division of CPWD and other documents scanned and uploaded are found in order.

The bid submitted shall be opened at **15:30 Hrs on 03.09.2026**

11. The bid submitted shall become invalid if:

11.1. The bidder is found ineligible.

11.2. The bidder does not upload all the documents (including GST Registration) as stipulated in the bid document.

11.3. If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest bidder in the office of tender opening authority.

11.4. If a tenderer does not quote any percentage above or below on the total amount of the tender the tender shall be treated as invalid and will not be considered as lowest tenderer.

12. The contractor whose bid is accepted, will be required to furnish performance guarantee at specified percentage of the tendered amount as mentioned in schedule F and within the period specified in Schedule F. This guarantee shall be in the form of Insurance Surety Bonds, Account Payee Demand draft, Fixed Deposit Receipts or Bank Guarantee of any Commercial Bank in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee. The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident Fund Code No. If applicable and also ensure the compliance of aforesaid provisions by the sub-contractors, if any engaged by the contractor for the said work within the period specified in Schedule F

13. **The description of the work is as follows:**

MOEI & Fans i/c water supply pump sets, Street lights for 12 Nos. Type-V quarters, 28 Nos. Type-IV Quarters and 54 Nos. Type-III quarters under GPRA at Melethumele, Trivandrum. SH: Providing manpower services for day to day operation of electrical services.

Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and 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 bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at their own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and ~~of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government~~ and local conditions and other factors having a bearing on the execution of the work.

14. The contractors whose bid is accepted will also be required to furnish either copy applicable licenses/registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW welfare board including provident fund code no if applicable and also ensure the compliance of aforesaid provisions by the subcontractors, if any engaged by the contractor for the said work with in the period specified in schedule F.

15. The competent authority on behalf of the President of India does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
16. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection
17. The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rates quoted
18. GST or any other tax applicable in respect of inputs procured by the contractor for the contract shall be payable by the contractor and Government will not entertain any claim whatsoever in respect of the same. However, component of GST at time of supply of service (as provided in CGST ACT 2017) provided by the contract shall be varied if different from that applicable on the last date of receipt of tender including extension if any
19. The contractor shall not be permitted to bid for works in the CPWD Circle (Division in case of contractors of Horticulture/Nursery category) responsible for award and execution of contracts, in which his near relative is posted a Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazetted officer in the Central Public Works Department or in the Ministry of Urban Development. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department
20. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service
21. The bid for the works shall remain open for acceptance for a period of Thirty (30) days from the date of opening of bids.
 - 21.1. If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department within 7 days after last date of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.
 - 21.2. If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department after expiry of 7 days after last date of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.
 - 21.3. In case of forfeiture of earnest money as prescribed in para (i) and (ii) above, the bidders shall not be allowed to participate in the rebidding process of the same work.
22. This notice inviting Bids shall form a part of the contract document. The successful bidders/contractor, on acceptance of his bid by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:
 - 22.1. The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
 - 22.2. Standard C.P.W.D. Form 7 or other Standard CPWD forms as applicable.
23. The intending bidders are required to update their profile in CPWD e-tender portal and to upload their bids well in advance of last date of submission of tender. Any issue related to updating

profile/uploading tender can be resolved through the concerned Executive Engineer/Assistant Engineer (Phone No:0471-2482700, e-mail Id: **cpwd143968@yahoo.co.in** or ERP help line No. 18001803286 or e-mail Id cpwd.support@techmahindra.com. The e-tendering bidders are also advised not to wait to raise any issues till the last date of submission of bid in their own interest.

24. In case any discrepancy is noticed between the documents as uploaded at the time of submission of the bid online and hard copies as submitted physically in the office of Executive Engineer, then the bid submitted shall become invalid. Further the bidders shall not be allowed to participate in the rebidding process of the work.
25. All online ERP modules with up to date amendments shall be followed by the contractor for execution of the work.

Executive Engineer (E)
Trivandrum, CPWD,
Thiruvananthapuram – 695522

**GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT
Percentage Rate Tender & Contract for Works**

Tender for the work of: **MOEI & Fans i/c water supply pump sets, Street lights for 12 Nos. Type-V quarters, 28 Nos. Type-IV Quarters and 54 Nos. Type-III quarters under GPRA at Melethumele, Trivandrum. SH: Providing manpower services for day to day operation of electrical services.**

- | |
|---|
| 1. To be uploaded by 15:00 Hrs on 03.09.2026 to /upload at https://etender.cpwd.gov.in . |
| 2. To be opened in presence of tenderers who may be present at 15:30 Hrs on 03.09.2026 in the office of the Executive Engineer-Electrical, CPWD, Trivandrum . |

TENDER

I/We have read and examined the notice inviting tender, schedule, A, B, C, D, E & F Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the President of India within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

I/We agree to keep the tender open for **Thirty (30) days** from the due date of its bid opening and not to make any modification in its terms and conditions.

A sum of **₹38,177/-** is hereby forwarded in cash/receipt treasury challan/deposit at call receipt of a scheduled bank/fixed deposit receipt of scheduled bank/demand draft of a scheduled bank/bank guarantee issued by a scheduled bank as earnest money.

A copy of earnest money in receipt treasury challan / deposit at call receipt of a scheduled bank/ fixed deposit receipt of scheduled bank / demand draft of a scheduled bank / bank guarantee issued by a scheduled bank is scanned and uploaded (strike out as the case may be). If I/We, fail to furnish the prescribed performance guarantee within prescribed period. I/We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

Further, I/We agree that in case of forfeiture of Earnest Money or Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/We shall be debarred for tendering in CPWD in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to ~~suspend me/us for one year and shall not be eligible to bid for CPWD tenders from date of issue of suspension order or to~~ forfeit the entire amount of earnest money deposit/Performance Guarantee if deposited.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived therefrom to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety& integrity of the State.

Dated:
Witness:
Address:
Occupation:

Signature of Contractor
Postal Address

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for an on behalf of the President of India for a sum of Rs.....
(Rupees.....).
.....).

The letters referred to below shall form part of this contract agreement: -

- (a)
- (b)
- (c)

For & on behalf of President of India

Dated:

Signature
Designation.....

PERFORMA OF SCHEDULES

SCHEDULE 'A'

Schedule of Quantities (as per PWD-3) : As per schedule attached

SCHEDULE 'D'

Extra schedule for specific requirements/
document for the work, if any: : NA

SCHEDULE 'E'

Reference to General Conditions of contract.
(GCC EPC projects 2022/ GCC Maintenance
Works 2023/ GCC Construction Works 2023) : Applicable GCC is GCC Maintenance Works 2023 as
modified & corrected upto previous day of the last
date of submission of the tender.

Name of Work : **MOEI & Fans i/c water supply pump sets, Street
lights for 12 Nos. Type-V quarters, 28 Nos. Type-
IV Quarters and 54 Nos. Type-III quarters under
GPRA at Melethumele, Trivandrum. SH: Providing
manpower services for day to day operation of
electrical services.**

Estimated Cost of Work : **₹19,08,837/-**

i. Earnest Money Deposit

: **₹38,177/-**

ii. Performance Guarantee

: As per OM No. DG/Manual-2024/20 dt. 27.02.2026
5% of ECPT or contract amount whichever is higher.
A bid will be treated as abnormally low if the quoted
bid amount is lesser than 80% of the estimated cost
put to tender.
Requirement of Additional Performance Guarantee
(APG): In case of abnormally low bids as defined
above, the bidder shall be required to submit
Additional Performance Guarantee (APG) in addition
to the Standard Performance Guarantee (PG). The
amount of Additional Performance Guarantee (APG)
shall be equivalent to the difference between the
80% amount of ECPT and quoted amount. (e.g. if
ECPT is A and quoted amount is 0.7A then the
amount of APG shall be 0.8A-0.7A)
Additional Performance Guarantee (APG) shall be in
the prescribed format of PG and has to be submitted
within the time frame prescribed for submission of
PG. The other terms and conditions of release etc.
Of APG shall be same as that of PG.

iii. Security Deposit

: 2.5% of tendered value

SCHEDULE 'F'

GENERAL RULES & DIRECTIONS:

Officer inviting tender : Executive Engineer (E), Trivandrum, CPWD, or
successor as designated by CPWD.

Definitions:

2(vi) Engineer-in-Charge : Executive Engineer (E), Trivandrum, CPWD, or
successor as designated by CPWD.

- 2(viii) Accepting Authority : Executive Engineer (E), Trivandrum, CPWD, or successor as designated by CPWD.
- 2(x) Percentage on cost of materials and Labour to cover all overheads and profits : 15%
- 2(x)(b) Standard Schedule of Rates Market Rate : DSR E&M 2025 and corrected up to the last date of receipt of bid and Market Rate
- 2(xi) Department : Central Public Works Department
- 9(ii) Standard CPWD Contract Form : General Conditions of Contract Maintenance Works 2023, CPWD Form 7/ 8 as modified & corrected upto previous day of the last date of submission of the tender.

Clause 1

1. Time allowed for submission of Performance Guarantee, programme chart (Time and progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW welfare board or proof of applying there of from the date of issue of letter of acceptance : 7 (Seven) days
2. Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the period provided in (i) above : 5 (Five) days

Clause 2

Authority for fixing compensation under clause 2 : Chief Engineer, Trivandrum, CPWD, or successor as designated by CPWD

Clause 2A

Applicable Clause 2/Clause 2A : No

Clause 5

Number of days from the date of issue of letter of acceptance for reckoning date of start Mile stone(s) as per table given below : 12 (Twelve) days

Sl. No	Description of Milestone (Physical)	Time allowed in days/ months (from date of start)	Amount to be with- held in case of non- achievement of milestone
Not Applicable			

Time allowed for execution of work : **12 (Twelve) Months**

Authority to decide:

- i. Authority to convey the decision of shifting of milestone and Extension of time : Engineer-in-charge or successor as designated by CPWD.
- ii. Authority to decide Rescheduling of milestone and extension of time : Chief Engineer, Trivandrum, CPWD, or successor as designated by CPWD

- iii. Shifting of date of start in case of delay in : Chief Engineer, Trivandrum, CPWD,
handing over of site or successor as designated by CPWD

Clause 5 Schedule of handing over of site

Part	Portion of site	Description	Time Period for handing over/reckoned from date of issue of letter of intent.
Part A	Portion without any hindrance	Full	Immediate
Part B	Portions with encumbrances	Not Applicable	Not Applicable
Part C	Portions dependent on work of other agencies	Not Applicable	Not Applicable

Clause 6

: Computerised Measurement Book (CMB) /
Electronic Measurement Book (EMB)

Mode of measurement

- : a) Computerised Measurement Book (CMB) /
Electronic Measurement Book (EMB)
b) Measurement to be recorded either by
contractor or jointly by department and
contractor

Clause 7

Gross work to be done together with net payment : Monthly
/adjustment of advances for material collected, if
any, since the last such payment for being eligible to
interim payment

Clause 7A

Whether Clause 7A shall be applicable

: **Yes**
(No Running Account bill shall be paid for the work
till the applicable labour licenses, registration with
EPFO, ESIC and BOCW Welfare Board, whatever
applicable are submitted by the contractor to the
Engineer-in-Charge.)

Clause 10A

List of testing equipment to be provided by the : As required at site
contractor at site lab

1..... 2..... 3.....
4..... 5..... 6.....

Clause 10B(ii)

Whether Clause 10 B (ii) shall be applicable

: Not Applicable

Clause 10C

: 25%

Clause 10CC

: Not Applicable

Clause 11

:

Specifications to be followed for the execution of work

1. CPWD General Specifications for Electrical Works Part I Internal 2023 with up-to-date amendments
2. CPWD General Specifications for Electrical Works Part II External 2023 with up-to-date amendments.
3. CPWD General Specifications for electrical works Part-VII: DG Sets 2013 with up-to-date amendments

Clause 16

Competent Authority for deciding reduced rates. : Chief Engineer, Trivandrum, CPWD,
or successor as designated by CPWD

Clause 18

List of mandatory machinery, tools & plants to be : As required at site
deployed by the contractor at site

1..... 2..... 3.....
4..... 5..... 6.....

Clause 19C/19D/19G/19K

Authority to decide penalty for each default: : Engineer-in – charge or successor as
designated by CPWD.

Clause 25

Constitution of Dispute Redressal Committee (DRC):

- i. Conciliator Additional Director General-Kochi, CPWD, Chennai
- ii. Arbitrator Appointing Authority: Chief Engineer, CPWD, Trivandrum
- iii. Place of Arbitration Trivandrum / as decided by Arbitrator in consultation with both parties

Clause 32

Requirement of Technical Representative(s) and recovery rate

Sl. No	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical/Technical representative	Minimum Experience in years	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 32(i)	
						Figures	Words
Not Applicable							

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.

Diploma holder with minimum 10 year relevant experience with a reputed construction company can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

Clause 38

: Not Applicable

i.	(a)	Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates	On the basis of Delhi Schedule of Rates 2023 printed by C.P.W.D
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ii.	Variations permissible on theoretical quantities		
	(a)	Cement	
	i.	For works with estimated cost put to tender not more than Rs. 25 lakh	3% plus/minus
	ii.	For works with estimated cost put to tender more than Rs. 25 lakh	2% plus/minus
	(b)	Bitumen for all works	2.5% plus & only nil on minus side
	(c)	Steel Reinforcement and structural steel sections for each diameter, section and category	2% plus/minus
	(d)	All other materials.	Nil

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Thiruvananthapuram – 695522

On non-judicial stamp paper of minimum Rs. 100

(Guarantee offered by Bank to CPWD in connection with the execution of contracts)

Form of Bank Guarantee for Earnest Money Deposit /Performance
Guarantee/Security Deposit/Mobilization Advance

1. Whereas the Executive Engineer (name of division), CPWD on behalf of the President of India (hereinafter called "The Government") has invited bids under(NIT number)..... dated for (name of work)
The Government has further agreed to accept irrevocable Bank Guarantee for Rs. (Rupees only) valid upto (date)*..... as Earnest Money Deposit from (name and address of contractor)(hereinafter called "the contractor") for compliance of his obligations in accordance with the terms and conditions of the said NIT.

OR**

Whereas the Executive Engineer (name of division), CPWD on behalf of the President of India (hereinafter called "The Government") has entered into an agreement bearing number with(name and address of the contractor) (hereinafter called "the Contractor") for execution of work (Name of work) The Government has further agreed to accept an irrevocable Bank Guarantee for Rs. (Rupees only) valid upto (date)..... as Performance Guarantee/Security Deposit/Mobilization Advance from the said Contractor for compliance of his obligations in accordance with the terms and conditions of the agreement.

2. We, (indicate the name of the bank) (herein after referred to as "the Bank"), hereby undertake to pay to the Government an amount not exceeding Rs. (Rupees..... only) on demand by the Government within 10 days of the demand.
3. We,(indicate the name of the Bank), do here by undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. (Rupeesonly)
4. We, (indicate the name of the Bank), further undertake to pay the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor in any suit or proceeding pending before any Court or Tribunal, our liability under this Bank Guarantee being absolute and unequivocal. The payment so made by us under this Bank Guarantee shall be a valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.
5. We, (indicate the name of the Bank), further agree that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligation here under to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractor and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Contractor or for any forbearance, act of omission on the part of the Government or any indulgence by the Government to the said Contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. We, (indicate the name of the Bank), further agree that the Government at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor at the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee the Government may have in relation to the Contractor's liabilities.
7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.
8. We, (indicate the name of the Bank), undertake not to revoke this guarantee except with the consent of the Government in writing.
9. This Bank Guarantee shall be valid up to unless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees only) and unless a claim in writing is lodged with us within the date of expiry or extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Date:

Witnesses:

1. Signature
Name and address

Authorized Signatory
Name
Designation
Staff code no.
Bank seal

2. Signature
Name and address

*Date to be worked out on the basis of validity period of 90 days where only financial bids are invited and 180 days for two/three bid system from the date of submission of tender.

**In paragraph 1, strike out the portion not applicable. Bank Guarantee will be made either for earnest money or for performance guarantee/security deposit/mobilization advance, as the case may be.

PART -B

Commercial & technical conditions, General Conditions Applicable to the work.

COMMERCIAL & TECHNICAL CONDITIONS

Scope of work: It is proposed to provide services for Operation and maintenance of electrical and mechanical installations at **GPRA Melethumele, Trivandrum.**

1. The work has to be carried out as per CPWD specification.
2. Prospective tenderer shall visit the site and acquaint himself with existing site condition, restriction in movement / working hours / security aspects / condition of electrical installation, D.G. set Installation before quoting for the job. No complaint for loss of labour shall be entertained at later stage on this account. Prospective tenderer should have adequate past experience of handling such jobs.
3. Tenderer shall provide the staff for running the installation strictly as per requirement prescribed in tender documents.
4. Successful tenderer shall be responsible for all tools & plants required for work (except Big ladder more than 10 feet).
5. **The Running account bill (RA Bill) shall be payable on monthly basis. If the agency makes default in paying monthly salary, then it will be considered as breach of contract and suitable action will be taken as per relevant clauses of GCC.**
6. **CPWD has launched the Government Maintenance module under the ERP system. Under this module, all complaints are to be assigned to the contractual staff and attended through this module only. Therefore, the contractor and his deployed staff are to be capable enough to use the ERP Government Maintenance module which is mandatory in CPWD. Necessary training is already been given by the ERP team from time to time and tutorials are available on the ERP website.**
7. In case of any accident during maintenance work / operation leading to injuries / damages to human being / equipment, loss of life the contractor shall be fully responsible for settling all claims and indemnify the department against any claim arising out of such accident
8. The contract can be terminated by Engineer-in-charge without assigning any reason by issue of the notice period of 30 days at any time during the contract. No claim or any compensation will however be entertained due to such termination of period prior to expiry of stipulated period of contract.
9. Successful tenderer shall maintain complaint register / log books and preventive maintenance work of installation work under taken by him time to time shall be entered in the records and on the basis of such records payment shall be released. Contractor shall obtain counter signature of officer designated by Engineer-in-charge. The required stationary / forms registers etc. shall be arranged by contractor for all sites.
10. Contractor will also be responsible for general daily cleaning of Enquiry, pump room, DG set room & electrical room etc.
11. The contractor shall make alternate arrangement for staff on leave or absent.
12. The weekly rest has to be given as per rules by the contractor to employed staff.
13. Duties of staff can be change / rearrange by Engineer in-charge as per site requirement.
14. The contractor shall arrange own T&P. Nothing shall be given by department.
15. The staff deputed by the contractor shall be liability of contractor, no claim for regularization wages etc. shall be entertained by department.
16. Any defect, fault if occurs in the installation has to be intimated to Engineer in-charge at the earliest.
17. Dismantle material received from site has to be returned back to department.
18. All the related documents such as log book registers records attendance register etc. should be available at site for inspecting officers.
19. Labour shall not be allowed to live in Government buildings such as Sub-station, pump house etc.
20. All the related maintenance record has to be submitted to department time to time or whenever asked by Engineer in-charge.
21. While taking over the installation for maintenance purpose the contractor shall bring all deficiencies in the notice of department. The contractor invariably shall be hand over the installation in working condition with all the fittings intact on the expiry of contract / termination.

22. Before claiming any payment, the contractor shall make payment to the staff employed at site for the previous month and labour report is to be submitted. Also ESI & EPF is to be paid to contract labours as per the prevailing rates notified by central government from time to time. The running bill & final bill payment will be made only after the contractor submit the proof of ESI & EPF payments to the contract labours deployed by him at site.
23. Wages shall be paid before the expiry of the tenth day from the last day of the wage period for which the wages are payable.
24. Wage payment delay compensation at a rate of Rs 100/- per day per person of the unpaid wages for the duration of the delay beyond the 10th day of scheduled date of payment will be made from contractor's bill.
25. The workmen to be engaged for the work shall be qualified as per relevant trade rules, CPWD specification / manual, trade practices and also as per I E rules and payment shall be made according to minimum wages rule.
26. The contractor shall arrange UAN number, ESI & EPF cards for the contract labours deployed by him within 15 days from the date of start of the agreement.
27. The contract includes the following: -
 - 27.1. Lubricating / greasing the bearings of motors, pumps.
 - 27.2. Operation of valves, switch gears, starters, D.G. Sets and pumps.
 - 27.3. Cleaning of installation i/c general cleaning of sub-station and pump house.
 - 27.4. Check indicating lamps.
 - 27.5. Consumables like electrolyte, distilled water and jelly & gland packing.
 - 27.6. Daily Checks
 - a) ~~Inspect physical condition of bar screen chamber and removal of obstacles, removal of collected oil and grease checking air blowing in the equalisation tank and FAB/ MBBR/ and other chambers, clogging conditions of sludge tank, working conditions/ temperature of pumps and motors and general working and functioning of the STP, analysis of treated water to maintain as per standards.~~
 - b) ~~Remove accumulated dust deposits and maintain the plant and surroundings in a neat and tidy manner.~~
 - c) ~~To perform residual chlorine test and record the reading in the plant log book.~~
 - 27.7. Monthly Checks
 - a) ~~Inspect physical condition of all equipment including motors, oiling and greasing if required, maintenance of pumps and blowers~~
 - b) ~~Remove accumulated dust deposits.~~
 - c) ~~Inspect Motor control panels and checking proper functioning of all components.~~
 - d) ~~Inspect motors/ pumps for overheating.~~
 - e) ~~Checking of belt tensions, checking clogging of filters/ tanks/ pipe lines etc., and removal of clogs.~~
 - f) ~~Back wash of filters. Also, to be carried out as when required~~
28. Log books of each equipment maintained by the contractor should be approved by the engineer-in-charge with regard to items to be filled in. Each log book to be signed by the skilled operator / supervisor on daily basis which signifies that parameters are maintained regularly by the operator / Supervisor / Engineer of the contractor. OEM / authorized agencies of each equipment are to be liaison by the contractor in case of any failure. The skilled Operator / Supervisor / Engineer must have all phone numbers of OEM's and authorized persons for attending fault. All coordination work will be carried out by the contractor in case of emergency with our fail.
29. All the complaints received at site has to be attended within 24 hours' penalty of Rs. 200 each complaint shall be imposed due to non-attending within 24 hours if any hindrance to attend the complaint, has to be reported to Engineer in-charge.
30. The additional material required for maintenance work shall be issued from department free of cost which is not covered in the schedule of work.

31. The contractor and his representatives or labour shall not remove, disturb, dislocate the existing equipments and its parts from its position until and unless it is authorized by the Engineer-in-charge or his authorized representative. Care shall be taken so as not to damage due to improper handling of the installations. The contractor shall be responsible for any damages happened due to mishandling of the equipments and the contractor will be responsible to make good the same to its original shape at his cost.
32. The following works are not considered to be included in the scope of this contract.
 - 32.1. Rewinding of ceiling fans, Electrical motors.
 - 32.2. Painting of the installations, light fittings, fan, transformers panels, street light pole etc.
 - 32.3. Jointing of UG cable
 - 32.4. Major repairs which need replacement of parts.
33. Any loss of the materials or any damage to the Govt. properties due to the staff employed will be responsibility of the contractor and he shall make good such losses/damages to the entire satisfaction of the department. No extra changes will be paid for such case
34. The contractor has to abide the labour laws as applicable by the Central Labour commissioner. Income tax, SC on Income tax, security deposit, GST etc. where ever applicable shall be recovered from the monthly bills of the agency.
35. The agency shall be responsible for all the consequences on account of the acts of indiscipline/omissions/commissions of the staff employed by him during and after duty hours.
36. Works for any part of the month shall be measured on prorata basis.
37. The contractor should make payment to labour engaged by them not less than as per minimum wages act and they shall get social security benefits from the contractor like ESI, EPF and the proof shall be submitted to the Engineer-in-charge.
38. Any increase in minimum wages shall come in to force from the date of implementation notified and shall be paid to the labourers. Compensation for increased wages paid will be governed by clause 10C of GCC.
39. In case of emergency for additional hours of working. pro-rata payment shall be paid
40. The duty hours can be changed as per discretion of Engineer-in-Charge. The scope of work is in continuous nature.
41. The personnel to be engaged shall be provided with 02 sets of uniform and shall come to duty in uniform only. In case it is found that the personnel are without uniform, a recovery will be made at the rate of Rs. 50/- (Rupees Fifty only) for every default.
42. Minimum qualification for the personnel deputed at site and & recovery rate if failed to depute the personnel as follows.

Sl. No	Worker	Minimum Qualification	Recovery Rate
1	Semi skilled Worker	Should be at least ITI pass / wiremen license issued by State Govt. or Central Govt. or Local Bodies/ Minimum 5 years in operating E&M installations	₹1994/- per shift per person
2	Unskilled worker	Minimum 10th pass and supporting semi skilled worker for day to day complaints/ maintenance E&M installations. Should be physically fit.	₹1814/- per shift per person

43. Salary breakup as follows.

Labour	Min. salary	
	Per day	For 26 days
Semi Skilled worker	997	₹25,922/-
Unskilled worker	907	₹23,582/-

44. Police verification of the staff deployed onsite shall be the responsibility of the contractor and a copy of Police verification of staff should be deposited to Engineers-in-Charge at site before start of work.

45. The agency shall submit the duty chart in advance on monthly basis. Attendance register shall be properly maintained and shall be produced to Assistant Engineer (E) / Junior Engineer (E) on demand. Irregularity/ forgery in the attendance register shall be considered sufficient grounds for the termination of the work under clause 3.

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General Terms and Conditions Applicable for All E&M Components

1. General

The work shall be generally carried out in accordance with tender/bid specifications and the following specifications / rules.

- 1.1. CPWD General Specifications for Electrical work Part I Internal – 2023, amended up to date.
- 1.2. CPWD General Specifications for Electrical work Part II External– 2023, amended up to date.
- 1.3. CPWD General Specifications for Electrical work Part VII DG sets – 2013, amended up to date.
- 1.4. Commercial and Additional conditions for this work.
- 1.5. The Indian Electricity Act, 2003, as amended up-to date.
- 1.6. Indian Electricity Rules 1956 amended up-to date.

2. Order of Precedence

Should there be any difference or discrepancy between the description of items as given in the Schedule of Quantities, particular specifications for individual items of work including general terms and conditions and IS Codes etc., the following order of precedence shall be followed.

- a) Schedule of quantities.
- b) Commercial and Additional conditions
- c) Drawings, if any.
- d) CPWD General Specifications.
- e) Relevant IS or any other International code in case IS code is not available.

However, nothing extra shall be paid on account of these, as the same are to be read along with schedule of quantities for the work.

- 2.2. This specification covers manufacture, testing as may be necessary before dispatch, delivery at site, all preparatory works, assembly and installation, commissioning putting into operation of equipments of all E&M components of the work.
- 2.3. The tenderer should in his own interest visit the site and get familiarized with the site conditions before tendering.
- 2.4. No T&P will be issued by the Department and nothing extra shall be paid on this account.

3. Commercial Conditions

- 3.1. Type of Contract: The work to be awarded by this tender shall be treated as indivisible works contract.
- 3.2. Income tax, GST, labour cess & other statutory deductions etc. shall be made at source as per the prevalent laws. The deductions of Security Deposit, Income tax, cess etc. shall be done after calculation of the eligible payment and net payment shall be done accordingly.
- 3.3. RATES: The rates quoted by the tenderer, shall be firm and shall be inclusive of all taxes (including GST, labour cess, IT etc.) including all charges for packing forwarding, insurance, freight, delivery, installation, testing, commissioning etc. at site including temporary construction of storage arrangement, risks, overhead charges, general liabilities/obligations.
- 3.4. The fee paid to statutory body(s) such as the CEA /Kerala State Electrical Inspectorate, fire & life safety authority, Kerala PCB or any other local body(s), as applicable, shall be reimbursed by department on production of proof of payment.
- 3.5. The contractor has to carry out maintenance as per CPWD General Specifications and manufacturer's standards for a period of 12 months from the date of handing over. Nothing extra shall be paid on this account.

4. Completeness of tender

All sundry equipment, fittings, unit assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections, and all other items which are necessary for efficient assembly and installation of equipment and components of the work shall be deemed to be included in the scope of work irrespective of whether such items are specifically mentioned in the tender document or not.

5. Storage and Custody of Materials

The agency has to make his own arrangement for storage and custody of materials. No storage accommodation shall be provided by the department. Watch and ward of the stores and their safe custody shall be the responsibility of the contractor till the final taking over of the installation by the department.

6. **Care of the Building**

Care shall be taken by the contractor while handling and installing the various equipment's and components of the work to avoid damage to the building. He shall be responsible for repairing all damages and restoring the same to their original finish. He shall also remove, at his cost, all unwanted and waste materials arising out of the installation from the site of work.

7. **Completion Period**

~~The completion period indicated in the tender documents is for the entire work of planning, designing, approval of drawings, arrangement of materials & equipment, lead time, delivery at site including transportation, installation, testing, commissioning and handing over of the entire system to the satisfaction of the Engineer-in-charge.~~

8. **Guarantee and Defect Liability Period**

All equipments shall be guaranteed for a period of 12 months (except LED fittings & BLDC fans which shall be guaranteed for a minimum of 5 years and 2 years respectively), from the date of taking over the installation by the department, against unsatisfactory performance and/or break down due to defective design, workmanship or material. The equipments or components, or any part thereof, so found defective during guarantee period shall be forthwith repaired or replaced free of cost, to the satisfaction of the Engineer-in Charge. In case it is felt by the department that undue delay is being caused by the contractor in doing this, the same will be got done by the department at the risk and cost of the contractor. The decision of the Engineer-in-charge in this regard shall be final & binding on the contractor.

The guarantee for LED light fittings & BLDC fans are to be got submitted from the manufacturer / authorized dealer in addition to the guarantee from the contractor. The manufacturer should give undertaking that in case of discontinuation of model and /or non- availability of spares, they will replace the unit with equivalent/ high end model in case of manufacturing defect during the warranty period of 5 years as in **Annexure – X. Type Test certificate, BIS certificate, LM79 and LM80 certificate test report from an NABL accredited laboratory need to be submitted prior for approvals.**

Before completion of defect liability period of one year for the entire work, the main contractor has to submit Security Deposit of 5% of the price quoted by him for SITC of LED fittings for the remaining 4 years warranty period in acceptable form i.e. FDR/Bank guarantee/DD to the concerned Executive Engineer (E). The Security Deposit deducted from the bills of contractor shall be refunded to the main contractor only after submission of Security Deposit for LED fittings to Executive Engineer (E), failing which this Security Deposit towards LED fittings at 5% of the price quoted by them for LED fittings shall be deducted from Security Deposit for total work and balance amount will be refunded only after completion of defect liability period of one year. The LED fittings Security Deposit will be released after completion of warranty period of 5 years.

The tenderer shall guarantee among other things, the following:

- 8.1. Quality, strength and performance of the materials used in the work.
- 8.2. Safe mechanical and electrical stress on all parts under all specified conditions of operation.
- 8.3. Satisfactory operation during the maintenance period.

9. **Acceptable makes of various equipments**

The acceptable makes of various equipment/components/accessories have been indicated in the "List of Acceptable Makes" appended with the tender document. The tenderer shall work out the cost or his offer on this basis. Alternate makes are not acceptable.

10. **~~Data Manual and Drawings to be furnished by the Tenderer:~~**

10.1. **After award of work**

~~The successful tenderer would be required to submit the following drawings after award of work for approval.~~

- a) General Layout of all E&M installations
- b) General arrangement drawing for HT/LT installations.
- c) GAD for E&M piping and other details.
- d) General arrangement of lighting & fans etc.
- e) Details of foundations for equipments and the weights of assembled equipments etc.
- f) The voltage drop calculation for external cabling works along with the proposed cable route/layout.
- g) Details of foundations for the equipments including DG set and the weights of all assembled equipments considering the soil bearing capacity and other relevant factors at site.
- h) Any other drawings/details necessary for the job as per general specifications.

The successful tenderer should furnish well in advance of commencement of work with three copies of detailed instructions and manuals of manufacturers for all items of equipments regarding installation, adjustments operation and maintenance including preventive maintenance & troubleshooting together with all the relevant data sheets, spare parts catalogue etc.

Warranty certificate of UPS from OEM has to be submitted along with supply of UPS.

11. **Extent of Work**

- 11.1. The work shall comprise of entire labour including supervision and all materials necessary to make a complete installation and tests and adjustments and commissioning, as required. The term complete installation shall not only mean major items of the plant and equipments covered by specifications but all incidental sundry components necessary for complete execution and satisfactory performance of installation with all layout charts etc. whether or not these have been mentioned in detail in the tender document in connection with this contract or not as this is a turnkey job.
- 11.2. The cables and other linearly measured items shall be brought to site only after taking exact measurements as per actual requirement at site of work. Excess quantities will not be accepted. Quantity of items brought to site and used in work as per actual requirement shall only be measured and paid irrespective of quantities of BOQ / schedule of work.
- 11.3. In addition to supply, installation, testing and commissioning of all E&M equipment, following works shall be deemed to be included within the scope of work to be executed by the tenderer as this is a turnkey job.
 - a) Minor building works necessary for installation of equipments, foundation, supports, making of opening in walls or in floors and restoring them to their original condition /finish and necessary grouting etc. as required.
 - b) Getting inspection done & obtaining approval from Central Electrical Authority/ Kerala State Electrical Inspectorate Authority, local fire authority, power distribution licensee and other local body(s) for energizing the installation. However, necessary fees for statutory inspection shall be reimbursed by the department on production of proof of payment.
 - c) The contractor shall remove all the debris due to the E & M works from the site as soon as the work is completed

12. **Exclusion and work to be done by other agencies**

The following shall be excluded from the scope of the work:

- 12.1. Major dismantling of any existing building work.

13. **Inspection and Testing**

The General intent of this specification is to mention the relevant tests to be done and furnished to the Engineer in Charge by the Contractor. These are guidelines. However the Contractor shall carry out all such tests and complete all formalities as per relevant Indian Standard Specifications, Fire Insurance Requirements and/or Electricity Rules and Regulations as per Government Gazette and Publications.

All equipment before installing on the site work shall be tested and all such results produced to the Engineer in Charge. Nothing shall absolve the Contractor from reperforming any tests that the Contractor may be called upon specifically by the Engineer in Charge or supply company or elec-

trical inspector. All equipment shall be tested jointly with the Engineer-in-Charge as required by various sections of the specifications and test data shall be furnished as required.

14. **Compliance with Regulations and Indian Standards:**

All works shall be carried out in accordance with relevant regulations, both statutory and those specified by the Indian Standards related to the works covered by this specification.

14.1. Factories Act

14.2. Indian Electricity Rules.

14.3. B.I.S. & other standards as applicable.

14.4. Work men's compensation Act.

14.5. Statutory norms prescribed by local bodies, CEA/Kerala State Electrical Inspectorate, Power Supply Co., etc.

After completion of the installation, the same shall be offered for inspection by the Central Electricity Authority/ Kerala State Electrical Inspectorate and local fire authority etc, as applicable. The contractor will extend all help including submission of test facilities to the representatives of CEA/ Kerala State Electrical Inspectorate and Local fire authority. The observations of CEA/ Kerala State Electrical Inspectorate and Local fire authority shall be attended by the contractor. The installation will be commissioned only after getting clearance from CEA/ Kerala State Electrical Inspectorate and the local fire authority. Contractor should get inspection done & obtain approval from Central electrical Authority/Kerala State Electrical Inspectorate and local fire authority as the case may be. Liasoning with the power distribution licensee for availing service connection shall be inclusive in the scope of the agency.

Nothing in this specification shall be construed to relieve the successful tenderer of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes

15. **Indemnity**

~~The successful tenderer shall at all times indemnify the department, consequent on this works contract. The successful tenderer shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the contractor shall be responsible for any accident or damage incurred or claims arising therefrom during the period of erection, construction and putting into operation the equipments and ancillary equipment under the supervision of the successful tenderer in so far as the latter is responsible. The successful tenderer shall also provide insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the successful tenderer on account of the above.~~

16. **Erection Tools**

~~No tools and tackles either for unloading or for shifting the equipments for erection purposes will be made available by department. The successful tenderer shall make his own arrangement for all these facilities.~~

17. **Co-operation with other agencies:**

~~The successful tenderer shall co-ordinate with other contractors and agencies engaged in the work and exchange freely all technical information so as to make the execution of this work under the scope of contract smooth. No extra remuneration is claimable from the department for such technical co-operation. If any unreasonable hindrance is caused and any completed portion of the work has to be dismantled and re-done due to lack of cooperation and coordination by the successful tenderer during the course of progress of work, such expenditure incurred will be recovered from the successful tenderer if the restoration work to the original condition or specification of the dismantled portion of the work was not undertaken by the successful tenderer himself at his cost.~~

~~The work shall be carried out with the least disturbance to existing ongoing services if any inside the building and campus and if integration to existing services in the campus is required, the same shall be done in consultation with the client department in due intimation to the Engineer-in-charge or their authorised representatives. It shall be the responsibility of the agency to pursue for the required cooperation with the user department in getting the work done within the stipulated time frame.~~

18. **Verification of Correctness of equipment at Destination**

The contractor shall have to produce all the relevant records to certify that the genuine equipments are supplied for the work.

19. **Painting**

~~The scope of work shall include cost of painting of the installation. The agency shall be required to do only making good the damages caused to the painting during transportation, handling & installation at site, if there is no major damage to the painting.~~

20. **Maintenance**

~~Sufficient trained and experienced staff shall be made available to meet any exigency of work during the guarantee period of 12 months from the date of taking over of the installation. Also, the existing maintenance staff in the campus shall be given training by the agency in safe and successful operation of the system.~~

~~The maintenance, routine as well as preventive, for 12 months from the date of taking over the installation as per manufacturer's recommendation and as mentioned in additional conditions under relevant sub-heads of the work.~~

21. **Approval of drawings, makes and models of equipment/materials for all E&M components**

The agency shall submit drawings and details such as makes and models of the equipments /materials offered by him along with specifications for all E&M components to the Engineer-in-charge of the work, before ordering the equipment/materials for approval. The Engineer-in-charge shall scrutinize the proposal and approve the makes and models which are acceptable as per the schedule, specifications, conditions of the agreement and inform the agency to proceed for procurement. After approval of the equipment/materials by the department the agency shall procure the equipment/materials.

22. **Quality & genuineness of material**

Adequate care may be taken such that only tested and genuine materials of proper quality are used in work shall be ensured by firm.

The firm shall also ensure that

- a) makes & brands of electrical components are as per the list of acceptable makes in tender documents and approval by the Engineer-In-Charge is obtained, whose decision will be final in the matter.
- b) The firm will be required to procure material directly from the manufacturer/ their authorized dealers to ensure genuineness & quality and as per the list of acceptable makes. Proof in this regard shall be submitted by the contractor to the department, if so required.
- c) Inspection at factory or at godown, as required, shall be arranged by the contractor on a mutually agreed date. Intimation of conducting factory inspection shall be made by the agency at least 2 weeks before the proposed factory visit to the Engineer-in-charge. However, Engineer-in-charge shall reserve the right to waive inspection in lieu of suitable test certificate, at his discretion.
- d) All the materials supplied by the contractor shall be procured & brought to site as per requirement at site of work in phases as per progress of work and in consultation with department so that these materials are not damaged & their manufacturer's warranty is not made void.

23. **Safety Codes & Statutory Regulations**

Nothing in this specification shall be construed to relieve the successful tenderer of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations, local bye laws and safety codes.

Successful tenderer shall arrange for compliance with statutory provisions of safety regulations and departmental requirements of safety codes in respect of labour employed on the work by the tenderer. Failure to provide such safety requirement would make the contractor liable for penalty as per tender conditions. In addition, the department will be at liberty to make arrangement for the deficient safety requirements at the cost of successful tenderer and recover the cost thereof from him.

24. **Power supply**

The contractor shall make his own arrangement for power supply required for execution of the work.

25. **Water supply**

The contractor shall make his own arrangement for water supply required for execution of the work.

Additional Conditions for Internal Electrical Installations

1. Extent of Work

- 1.1. The work shall comprise of entire labour including supervision and all materials necessary to make a complete installation and such tests and adjustments and commissioning as may be required by the department.
- ~~1.2. The main agency shall be responsible for all acts of omissions and submissions of the associate Contractor engaged by him, even with approval of department.~~
- 1.3. Approval of the Engineer-in-charge shall be taken well in advance for all the materials to be supplied and used in all the works by the contractor.
- 1.4. The contractor has to make his own arrangements for stores and watch and ward and no extra claim for this will be entertained.
- 1.5. The main contractor shall be responsible for coordinating the activities of all works and will ensure progress of works as per laid down programme.
- 1.6. The main contractor and / or his associate contractor or his representative is bound to sign the site order book as and when required by the Engineer-in-charge and will comply with the remarks therein.
- 1.7. The contractor shall make his own arrangement at his own cost for electrical / General Tools and plants required for the work.
- 1.8. The contractor shall remove all the debris due to the E & M works from the site as soon as the work is completed.
- 1.9. Guarantee for the electrical installation in the prescribed proforma shall be provided by the agency after handing over of the installation.

2. ~~Payments Terms~~

~~On account payments for part work (after stipulated and statutory deductions) as assessed by the Engineer in-charge for the applicable items in the Contract shall be payable at part rates not exceeding the percentage indicated against the stages of work as below.~~

2.1. ~~Items connected with point wiring, circuit wiring, sub-main wiring, power point wiring and light plug wiring.~~

S.No	Stage of work	Percentage of payment on pro-rata basis
1	On laying of conduits with accessories, switch boxes, etc.	35%
2	On drawing of wires i/c terminations, switches, sockets, cover plates etc.	50%
3	On completion of item and after testing and commissioning.	10%
4	At the time of payment of final bill	5%

2.2. ~~LT panel boards, MCB Distribution Boards, MCBs, RCBOs, LED fittings, UPS and other equipments~~

S.No	Stage of work	Percentage of payment
1	On initial inspection of material and delivery at site in good condition on pro-rata basis.	70%
2	On completion of installation on pro-rata basis.	15%
3	On completion of testing and commissioning.	10%
4	At the time of payment of final bill.	5%

3. Additional Conditions

- 3.1. The wiring and conduit layout shall be marked by the contractor in the drawing prior to execution and shall be got approved from the Engineer-in-charge.
- 3.2. The rupturing capacity of the MCBs shall be 10 KA minimum. The MCBs shall have ISI mark. Quantities of MCBs of different rating shall be brought in consultation with the Engineer-in-Charge or his authorized representative.
- 3.3. All the MCCBs shall be rated for $I_{cs}=100\% I_{cu}$.
- 3.4. The copper wire to be used on this work shall be FRLS type and ISI marked.
- 3.5. The make of switch boxes, cover plates etc. shall be the same as that of switches. Only the required knockouts of the switch boxes are to be removed for terminating the conduit pipes with PVC glands / check nuts.
- 3.6. Make of MCB/MCCB shall be the same as the make of MCB DB.
- 3.7. All the switch boxes, MCB DBs are to be covered with plastic masking sheet / petroleum gelly when installed in brick work till the plastering / painting is done to avoid sticking of cement plaster/ splashes of paint. Cement plaster / paint are to be cleaned immediately after plaster to avoid rusting of switch boxes and MCB DBs. All plastic sheets are to be removed at the time of handing over.
- 3.8. The E & M works shall be carried out by the contractor, side by side with the progress of civil work.
- 3.9. All PVC conduits accessories shall be of the same make as conduits. The conduit shall be terminated at switch boxes/metallic junction boxes with suitable PVC glands/check nuts.
- 3.10. Cutting of brick walls shall be with chase cutting machine only. All repairs and patch works shall be neatly carried out to match the original finish and to the entire satisfaction of the Engineer -in-Charge.
- 3.11. All metallic conduit shall be ISI marked. The wall thickness of steel conduit shall not be less than 1.6mm(16SWG) for conduits upto 32mm dia and not less than 2mm (14SWG) for conduits above 32mm. These shall be solid drawn or reamed by welding, and finishing with galvanized or stove enamelled surface.
- 3.12. All the sub main and circuit wiring item includes loose wire for connections inside switch boxes and MCB DBs. No payment for these loose wires shall be made. However wires within the cubicle panel board will be measured and paid under relevant item of work.
- 3.13. All the circuits / sub-main wiring are to be suitably numbered with stickers / marker pen at LT panel board, MCB DBs, switch boards (on backside of cover plate) for ease of maintenance. Nothing shall be paid extra on this account.
- 3.14. To facilitate drawing of wires, 18 SWG GI fish wire shall be provided along with laying of recessed conduit for which no extra payment shall be made. For conduits laid for other services where wiring is not done along with Internal EI works, fish wire shall be invariably drawn.
- 3.15. The connection between incoming switch / isolator and bus bar shall be made with suitable size of thimble and cable at no extra cost.
- 3.16. Copper conductor of insulated cables of size 1.5 Sq.mm and above shall be stranded and terminals provided with crimped lugs.
- 3.17. All sub-main wiring shall be terminated in the main board with suitable copper lugs and thimbles for which nothing extra will be paid.
- 3.18. All hardware items such as screws, thimbles, GI wire etc. which are essentially required for completing an item as per specifications will be deemed to be included in the item even when the same have not been specifically mentioned.
- 3.19. All hardware items such as nuts/ bolts/ screws/ washers etc. to be used in work shall be zinc/ cadmium plated iron.

- 3.20. While laying conduit, suitable size junction boxes shall be provided for pulling wires. The junction box cover should be of phenolic laminated / good quality plastic sheet of thickness not less than 3mm. Nothing extra shall be paid on the account.
- 3.21. All materials to be used in work shall be ISI marked. The make of the materials shall be as indicated in the list of acceptable makes. Alternate makes are not acceptable. The materials to be used in the work shall be got approved by the Engineer in Charge / his representative before use at site. The Engineer-in-Charge shall reserve the right to instruct the contractor to remove the material which, in his opinion, is not acceptable.
- 3.22. All modular switches/ sockets/ regulator/ telephone/ TV / internet outlets shall be of the same make.
- 3.23. Installation of distribution boards in niches in walls and making good the same shall be in the scope of the work.
- 3.24. All switch boards having fan controls shall be provided with additional two module spare space. Space/provision with blanking plate shall be provided if fan regulator is not provided therein. However, if twin control fan points is provided, the same shall be provided in one of the switch boards and this shall be done as per the direction of the Engineer-in-charge.
- 3.25. A blanking plate shall be provided between 25A switch and 25A socket outlet without extra cost, wherever provided.
- 3.26. Wherever light fittings are proposed to be provided on the false ceiling, the respective light / fan point wiring will have to be brought upto the terminal of the light fittings / fans by the contractor. Flexible metal conduits shall be used for drawing wires from conduits on ceiling to fittings on false ceiling and nothing extra shall be paid to the contractor for the same.
- 3.27. The external cabling works shall be carried out along the route as directed by the Engineer-in-charge.
- 3.28. The voltage drop calculation for the entire external cabling network shall be provided by the agency as per relevant standards for verification by the department. Procurement and laying of cables shall only be done thereafter.
- 3.29. All MCCBs and relays forming protection to the system shall be suitably calibrated and tested for trouble free operation.
- 3.30. The earthing of the installation shall be properly ensured at all parts of the installation.
- 3.31. All LT panel boards shall be compliant to relevant IS standards. The design of the LT panel board shall be sufficient capacity to withstand the fault level at the point of installation. The enclosures shall be designed to take care of normal stress as well as abnormal electro-mechanical stress due to short circuit conditions. All covers and doors provided shall offer adequate safety to operating persons. Ventilating openings, if provided, shall be arranged such that the required ingress protection is not defeated.
- 3.32. Switchboards construction shall be compartmentalized and segregated for incomer, busbar, cable alley, each outgoing feeders and control and metering units unless otherwise specified.
- 3.33. The switchboards shall be designed for use in the local ambient temperature and humid tropical conditions.
- 3.34. Switchboard panels and cubicles shall be fabricated with CRCA Sheet Steel of thickness not less than 2.0 mm unless otherwise specified and shall be folded and braced as necessary to provide a rigid support for all components. The doors and covers shall be fabricated from CRCA sheet steel of thickness not less than 2 mm unless otherwise specified. Joints of any kind in sheet metal shall be seam welded and all welding slag ground off and welding pits wiped smooth with plumber metal. Switchboards shall be provided with "Danger Notice Plate" conforming to relevant Indian Standards.
- 3.35. Busbars shall be made of high conductivity, 99.9% purity, high strength Aluminum / Copper of ETP grade. Busbars shall be of rectangular cross sections shall be provided in all LT panel boards. Busbar shall be suitable to withstand the stresses of fault level at the point of installation. Continuous earth bus sized for prospective fault current to be provided with arrangement for

connecting to station earth at two points shall be provided in LT panel boards. Hinged doors / frames to be connected to earth through adequately sized flexible braids.

- 3.36. Copies of type tests carried out on MCCB at manufacturers works shall be furnished along with the delivery of the switchboards.

ANNEXURE – X

UNDERTAKING LETTER FROM MANUFACTURERS OF LED LIGHT FITTINGS
(To be submitted along with supply of fittings)

We hereby agree that

- a) LED light fittings including driver supplied by us are guaranteed for five years from the date of handing over.
- b) In case of manufacturing defect, discontinuation of model and non-availability of spares, we will replace the fittings with equivalent/ high end model during the warranty period of 5 years.
- c) Before finalization of bill after completion of work, we agree to submit security deposit of 5% of the price quoted by the main contractor for SITC of LED fittings for the 5 years warranty period in acceptable form i.e. FDR/ Bank guarantee.

For M/S,

.....

(Authorized signatory of manufacturer
/ Dealer of LED luminaries)

Counter

Signature of Major contractor

Note: To be furnished on a 'Non-Judicial' stamp paper worth Rs. 200/-

List of Approved Makes

Internal Electrical Installations		
Sl. No	Item Description	Makes
1	PVC insulated copper conductor cable / Telephone cable / Co-axial TV Cable/submersible cable.	Finolex/ Havells/ Anchor/ L & T / Polycab/ RR Kabel (All wires shall be FRLS with "ISI" marked).
2	PVC conduit and accessories	Avonplast / Precision / Konseal / AKG / Finolex / BEC / Modi / Anchor / Javeri "ISI" marked.
3	Steel (MS)Conduits	AKG / BEC / Steel kraits /NIC / Precision / RMCON / Bharat / Gupta with "ISI" marked
4	Modular plate type switch, Socket, other modular items, modular Box, inner & outer plate and accessories	Honeywell (MK)- Blenzeplus / Legrand – Arteor or Myrius / Schneider zencelo "ISI" marked
5	Cable management / Floor trunking	MK / Legrand/ Schneider/ Siemens/OBO
6	Rising main/ End feed unit/ tap off boxes	Legrand/Siemens/ L&T /Schneider/ABB
7	MCB DBs	Siemens: Betagard/ ABB: Elegance / Legrand: Ekinox3 / Schneider: Acti 9 / L&T / Havells: STADX
8	MCBs	Legrand: DX3/ ABB: SB200M/ Schneider: Acti 9/ Siemens: 5SX4/L&T / Havells: STADX
9	RCCB/RCBO	Legrand: DX3/ ABB: FB200, DSB200M, DDA200/ Schneider: Acti 9/ Siemens: Betagard /L&T / Havells: STADX
10	MCCB's	Siemens/ L&T /Schneider/ABB
11	Panel board mounting Switches	L & T / Siemens / Schneider/ABB
12	Industrial sockets	Siemens/ Legrand / Schneider / Hager
13	Timer	L&T / Schneider / Siemens/ Legrand/BCH/GE
14	Contactors	L&T / Schneider / Siemens/ABB
15	LED light fittings	Philips/ Wipro/ Havells/Trilux
16	Lamps	GE/ Osram/ Philips/ Bajaj/Wipro / Havells
17	Angle/batten holder	Kinjal/ Emperor/ Anchor, all ISI marked.
18	Cat6A UTP cables/ OFC cable	Belden/ Panduit /AMP/ Commscope/Siemon/Polycab
19	Meters (Digital type)	Conzerv / AE / Krykard/ Schneider/ Mecon/ L&T/ Cadel/ C&S/ ABB
20	Telephone/ TV cable/Tag Block	Delton/ Finolex/ L&T/Legrand/Polycab
21	CT's	AE / BCH/ GE/ MECO/ Rishab
22	Ceiling rose	Anchor / Lisha / Leader "ISI" marked.
23	BLDC Ceiling Fan	Crompton/Havells/Atomberg/Orient
24	Exhaust fan – Heavy duty	Havells/Almonard/Crompton
25	Wall fan	Crompton/Havells/Atomberg/Orient
26	MS/GI pipe	Zenith/ Jindal / TATA
27	Phenolic laminated sheet	Hylam/ Green lam / Formica (minimum 3 mm thick, ISI Marked)
28	Octagonal Street light poles	Philips / Bajaj / Wipro/Gammon India/ Valmont
29	XLPE/ PVC insulated PVC sheathed aluminum /copper conductor UG cable.	Universal / Finolex/ CCI/ Gloster/ Grandlay/ Havells / Polycab/KEI, "ISI" marked
30	HDPE Pipe & accessories	Duraline/ Supreme/Times Technoplast/ Hasti/

		National Plastic/Finolex
31	HDPE DWC Pipe & accessories	Duraline/Supreme/Times Technoplast/ Hasti/ National Plastic/Finolex /Astral Limited (Rex/Telerex)/jain Irrigation/Gemini
32	Energy Meters for KSEB metering	As per approved list of KSEB Ltd.
33	Call bell/Buzzer	Anchor/ Leader/Rider/GM
34	HRC fuses	L&T/ GE/ Siemens/Havells
35	Indicating Lamps, Selector Switches	Kaycee / BCH / L & T Salzer / Siemens/C&S
36	Cable glands	Jainson/ Comet/ Dowells/ Cosmos
37	Cable Lugs	Comet/Cosmos/Dowells/Hax Brass(Copper Alloy India)
38	Fasteners	Hilti / Fischer / Bosch
39	Surge protectors	Legrand/ Siemens /Schneider/ ABB/ Obo Bettermann/L&T
40	Fire Extinguishers	Flameguard / Padmini / Newage / Fire Shield / Swastik / Cease fire / Minimax /Safex / Kanex
41	MCCB incomer and MCCB outgoing distribution boards	Legrand/Siemens/Schnieder/ABB/L&T
42	DB mounting MCCBs	Same make as of MCCB incomer DBs.
43	LT panel boards	CPRI Certified Panel fabricators
45	UPS	Socomec/Eaton/APC/Vertiv/Libert
46	Sealed maintenance free Battery	Exide/ Amaron/ Panasonic
47	Structural earthing / Lightning Protection	Dehn/ OBO/ Axis /ABB
48	Cable trays	Profab Engineer/ slottco/ RICO/ Legrand/ OBO
49	All other items	As per approval of Engineer – in – charge

PART C
SCHEDULE OF QUANTITIES

Schedule of Quantities

Name of Work: MOEI & Fans i/c water supply pump sets, Street lights for 12 Nos. Type-V quarters, 28 Nos. Type-IV Quarters and 54 Nos. Type-III quarters under GPRA at Melethumale, Trivandrum. SH: Providing manpower services for day to day operation of electrical services.

Sl. No	Item Description	Qty	Unit	Rate	Amount	Remarks
1	Providing services for Day to day maintenance operation, and general up keep of all internal electrical installation, street / compound lights, DG set, water supply pump set etc. as required.					
1.1	1 No. Semi skilled worker per day for all working days	24	Month/Person	35,802.03	8,59,248.72	MR
1.2	1 No. Unskilled worker per day for all working days	24	Month/Person	32,594.89	7,82,277.36	MR
2	Supplying and replacement of the following consumable electrical accessories in the existing electrical fittings / fixtures i/c dismantling of the old defective as and when required / found faulty etc. complete as required. (Note: No labour charges are payable as the same is already included in Item no.1.1 & 1.2).					MR
2.1	5/6 A switch (Modular Type)	40	Each	131.39	5,255.60	MR
2.2	15/16 A switch (Modular Type)	20	Each	318.61	6,372.20	MR
2.3	3 pin 5/6 A socket outlet (Modular Type)	20	Each	228.31	4,566.20	MR
2.4	6 pin 15/16 A socket outlet (Modular Type)	20	Each	486.15	9,723.00	MR
2.5	Bell push (Modular Type)	5	Each	267.71	1,338.55	MR
2.6	2 module stepped type fan regulator (Modular Type)	5	Each	1,100.39	5,501.95	MR
2.7	6 A, to 32 A, ratings, SP MCB, "C" curve, 10 KA breaking capacity	10	Each	309.58	3,095.80	MR
2.8	40 A DP 30mA RCCB	2	Each	3,925.25	7,850.50	MR
2.9	40 A DP Isolator	4	Each	751.38	3,005.52	MR
2.10	63 A FP 30mA RCCB	2	Each	5,493.70	10,987.40	MR
2.11	63 Amps FP Isolator	2	Each	1,745.01	3,490.02	MR
2.12	1.5 sq. mm ISI marked, FRLS PVC insulated, single core copper conductor cable	300	Metre	43.28	12,984.00	MR
2.13	4 sq. mm ISI marked, FRLS PVC insulated, single core copper conductor cable	300	Metre	115.05	34,515.00	MR
2.14	1/2 Module PVC Surface Box	5	Each	82.12	410.60	MR
2.15	1/2 Module Modular base and Cover plate	5	Each	203.66	1,018.30	MR
2.16	3 Module PVC Surface Box	5	Each	93.63	468.15	MR
2.17	3 Module Modular base and Cover plate	5	Each	223.36	1,116.80	MR
2.18	6 Module PVC Surface Box	2	Each	141.25	282.50	MR
2.19	6 Module Modular base and Cover plate	2	Each	431.93	863.86	MR
2.20	25A Modular SP MCB for AC/Geyser switch	3	Each	486.15	1,458.45	MR
2.21	20/25 amp modular type socket	3	Each	435.22	1,305.66	MR

Sl. No	Item Description	Qty	Unit	Rate	Amount	Remarks
2.22	Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. metal(Aluminium alloy) blades, 30 cm long down rod, 2 nos. Canopies, shackle kit, safety rope, copper winding, steel/Al body Power Factor not less than 0.9, Service Value (CM/M/W) minimum as below, 350 RPM (tolerance as per IS : 374-2019), THD (Total Harmonic Distortion) less than 10%, suitable for operation with regulator for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 Deg.C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC supply, Ceiling Fan compliant to IS 374:2019 fan i/c external connections with 1.5 sq.mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required. 1200mm, service value ≥ 6.0 CM/Min/Watt, air delivery 210 CM/Min (Minimum)	20	Each	4,325.70	86,514.00	MR
2.23	300 mm dia, 900 rpm heavy duty metallic body exhaust fan	5	Each	4,341.08	21,705.40	MR
2.24	250 mm dia plastic body exhaust fan	5	Each	2,122.10	10,610.50	MR
2.25	10 W, 600 mm long LED mirror light fitting including driver, lamp and all accessories	5	Each	380.10	1,900.50	MR
2.26	12 W Surface (Round) type PDC Aluminium Housing LED fitting with all accessories and lamps mounting on ceiling surface not less than 100 lumens/watt, Min-50000 burning hours, LM79 report, THD less than 15% including connection	5	Each	844.64	4,223.20	MR
2.27	20 W box type LED Tube light fittings with 1 nos LED tube of 1x20 Watt, having lumen output not less than 2000 Lumen per tube, efficacy:- not less than 100lumen/watt, on the ceiling / wall, suitable for 230 V, 50 Hz AC supply, i/c connections with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable, with suitable clamping/ fixing arrangements, as required.	10	Each	668.67	6,686.70	MR
2.28	4200 – 4800 lumen LED Street Light fitting made up of pressure die-cast Aluminium housing with toughened glass/UV Resistant Poly Carbonate Cover and high-power LED's with secondary optics, THD Less Than 10%, 50000 Burning Hours, not less than 120 Lumens/watt, Upto 10KV Surge Protection, CRI > 80% and IP66 protection.	5	Each	4,012.05	20,060.25	MR
	Total				19,08,836.69	
	Say Rs.				19,08,837.00	

Executive Engineer(E)
CPWD, Trivandrum