

### INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI ENGINEERING UNIT

E-mail: <u>eutenders@iittp.ac.in</u>

Phone: 0877-2503604

#### Notice Inviting Tender.

Date: 30.08.2022

Online **Percentage Rate** bids are hereby invited in **two cover system** from eligible electrical contractors holding 33kV electrical licence from central or any state government for **Annual Electrical Operations and Maintenance Services & Minor Electrical Works at IIT Tirupati, Merlapaka (V), Yerpedu (M), Tirupati (Dt). Bidders can download complete set of bidding documents from e-procurement Platform <u>https://eprocure.gov.in/eprocure/app</u> from 30.08.2022 onwards. Bidders need to submit the bids online by uploading all the required documents through https://eprocure.gov.in/eprocure/app.** 

# Last Date/ Time for receipt of bids through e-procurement is: 20.09.2022 up to 16:00 Hrs

Late bids will not be accepted.

For further details regarding Tender Notification & Specifications please visit website: <u>https://eprocure.gov.in/eprocure/app</u> and <u>www.iittp.ac.in/tenders</u>

Online Publication & Tender	30/08/2022, 16:00 Hrs	
<b>Document Download Date &amp; Time</b>		
<b>Clarification Start Date &amp; Time</b>	30/08/2022, 16:00 Hrs	
<b>Clarification End Date &amp; Time</b>	19/09/2022, 16:00 Hrs	
Bid Submission Start Date & Time	30/08/2022, 16:00 Hrs	
Pre Bid Meeting	12/09/2022, 10:00 Hrs	
<b>Bid Submission End Date &amp; Time</b>	20/09/2022, 16:00 Hrs	
Technical Bid Opening Date & Time	21/09/2022, 16:00 Hrs	
Price Bid Opening Date & Time	Will be announced after technical	
	evaluation to the successful bidders.	

#### **CRITICAL DATE SHEET**

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# **TENDER DOCUMENT**

Name of Work	Annual Electrical Operations and
	Maintenance Services & Minor Electrical
	Works at IIT Tirupati, Merlapaka (V),
	Yerpedu (M), Tirupati (Dt) - 517619
Name of the Institute	IIT Tirupati
Date	30/08/2022
Tender Notification No	IITT/EU/E&M/Tender/2022-23/002
Tender Fee	₹ 1,500/-
Earnest Money Deposit (EMD)	₹ 2,69,558/-
Estimated Cost	₹ 1,34,77,904/-
Last Date & Time of submission of Tender	20/09/2022 up to 16:00 Hrs
Date & Time of opening of	21/09/2022 @ 16:00 Hrs
Technical bid	
Date & Time of opening of Price	After evaluation of technical bids, the date,
bid	time and place of opening of the price bids
	will be intimated to technically qualified
	bidders.
Duration of Contract	Twelve months, however this period is
	extendable on the whole or part there of up
	to 100% of the value subject to the
	completion of work satisfactorily and/or as
	per the requirement of the Institute.
Address for submission of Tender	The Executive Engineer,
	Engineering Unit, IIT Tirupati,
	Merlapaka (V), Yerpedu (M),
	Tirupati (Dt)-517619.
	Andhra Pradesh.

#### **BRIEF DESCRIPTION ABOUT IIT TIRUPATI**

IIT Tirupati is an Institute of National Importance, established in the year 2015, under Ministry of Education, Govt. of India. The institute is located at Merlapaka (V), Yerpedu (M), Tirupati (Dt), Andhra Pradesh.

IIT Tirupati is availing power supply from M/s APSPDCL through 33 kV feeder for Academic and Hostel areas, and through 11 kV feeder for Residential areas. IIT Tirupati is having 6 nos of 11 kV substations, 1 no of 33 kV substation and 1 no of 11 kV switching station.

IIT Tirupati is availing raw water supply from SSG Canal through M/s RWS&S department. Excess water will be stored in the institute Ponds and same will be pumped to WTP through intake well. IIT Tirupati is having WTPs and STPs for raw water treatment and sewage water treatment.

IIT Tirupati is having 216.5 kWp roof top solar power plant under RESCO model and another 780 kWp plant will be established on roofs of academic buildings.

APSPDCL	Andhra Pradesh Southern Power Distribution Corporation
AFSFDCL	-
	Limited
RWS&S	Rural Water Supply & Sanitation
SSG Canal	Satya Sai Ganga Canal
O.E.M.	Original Equipment Manufacture
Engineer in Charge	Representative from Engineering Unit, IIT Tirupati
RESCO	Renewable Energy Service Company
HT	High Tension
LT	Low Tension
VCB	Vacuum Circuit Breaker
ACB	Air Circuit Breaker
СТ	Current Transformer
РТ	Potential Transformer
ESS	Electrical Substation
WTP	Water Treatment Plant
STP	Sewage Treatment Plant
OHT	Overhead Tank
UG Cable	Underground Cable
BoQ	Bill of Quantities
IR	Insulation Resistance
ESS	Electrical Substation

#### **ABBREVIATIONS**

#### **INSTRUCTIONS FOR ONLINE BID SUBMISSION**

Instructions to the bidders to submit the bids online through the Central Public Procurement Portal for e-Procurement at <u>https://eprocure.gov.in/eprocure/app.</u>

- 1. Possession of valid Digital Signature Certificate (DSC) and enrolment / registration of the contractors / bidders on the e-Procurement/e-tender portal are prerequisite for e-tendering.
- 2. Bidder should register for the enrolment in the e-Procurement site using the "Online Bidder Enrolment" option available on the home page. Portal enrolment is generally free of charge. During registration, the bidders should provide only valid and true information including valid E-mail id. All the correspondence shall be made directly with the contractors/bidders through E-mail id as registered.
- 3. Bidder need to login to the site through their user ID / password chosen during enrolment / registration.
- 4. Then the Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by SIFY / TCS / nCode / eMudra or any other Certifying Authority recognized by Controller of Certifying Authorities (CCA) India on e-Token / Smartcard, should be registered.
- 5. The registered DSC only should be used by the bidder in the transactions and should ensure safety of the same.
- 6. Contractor / Bidder may go through the tenders published on the site and download the tender documents/schedules for the tenders.
- 7. After downloading / getting the tender document/schedules, the Bidder should go through them carefully and then submit the documents as required, otherwise bid will be rejected.
- 8. Any clarifications may be sought online through the tender site, through the contact details or during pre-bid meeting if any. Bidder should take into account the corrigendum if any published before submitting the bids online.
- 9. Bidder may log in to the site through the secured login by the user id / password chosen during enrolment / registration and then by submitting the password of the e-Token / Smartcard to access DSC.
- 10. Bidder may select the tender in which he / she is interested in by using the search option and then move it to the 'my tenders' folder.
- 11. From my tender folder, he / she may select the tender to view all the details uploaded there.
- 12. It shall be deemed that the bidder has read and understood all the terms and conditions before submitting the offer. Bidder should go through the tender schedules carefully and upload the documents as asked; otherwise, the incomplete bid shall stand rejected.
- 13. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and ordinarily it shall be in PDF /xls / rar / jpg /

dwf formats. If there is more than one document, all may be clubbed together and provided in the requested format. Bidders Bid documents may be scanned with 100 dpi with black and white option. It is advisable that each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip / rar and the same if permitted may be uploaded. The file size being less than 1 MB the transaction uploading time will be very fast.

14. The bidders can update well in advance, the documents such as certificates, annual report details etc., under "My Space option" and these can be selected as per tender requirements and then send along with bid documents during bid submission. This will facilitate the bid submission process faster by reducing upload time of bids.

#### 15. TENDER FEE, EMD & PERFORMANCE SECURITY DEPOSIT:

- (a) Tender Fee of ₹ 1,500/- (Rupees fifteen hundred only) should be submitted ECS (Bank transfer / NEFT / RTGS) in favour of <u>Indian Institute of</u> <u>Technology Tirupati</u>.
- (b) EMD of ₹ 2,69,558/- (Rupees Two Lakh Sixty Nine Thousand Five Hundred and Fifty Eight only) should be submitted ECS (Bank transfer / NEFT / RTGS) in favour of Indian Institute of Technology Tirupati.
- (c) Bank A/c Details: Name: Indian institute of Technology Tirupati Main Account Bank: State Bank of India Account No: 35523338208 IFSC Code: SBIN0006677
- (d) Micro and Small Enterprises (MSEs) firms as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or the firms registered with the National Small Industries Corporation or Central Purchase Organisation or the concerned Ministry or Department or Start-ups as recognized by Department of Industrial Policy & Promotion (DIPP) for **all these items only**, are exempted from Tender fee and EMD. However, they have to enclose valid self-attested registration certificate(s) along with the tender to this effect.
- (e) The bidders who seeks exemption from Tender fee and EMD as per clause no. (d) above, if they withdraw or modify their bids during the period of validity, or if they are awarded the contract and they fail to sign the contract, or to submit a performance security before the deadline defined in the request for bids document, they will be suspended for the period of three years or as decided by the competent authority from being eligible to submit bids for contracts with the entity that invited the bids.
- (f) EMD of all unsuccessful bidders (if any) will be returned after finalisation of the tender. EMD of the successful bidder will be returned only after receipt performance security.

- (g) In case of successful tenderer, the EMD (if any) may be adjusted towards the performance security.
- (h) The amount of EMD (if any) is liable to be forfeited, if the tenderer withdraws from the offer after submission of the tender or after the acceptance of the offer and fails to remit the performance security.
- (i) No interest will be paid on the EMD (if any) and performance security.
- (j) The bidders shall upload scanned copy of payment details towards Tender fee and EMD. Bids will be accepted only on verification and confirmation by the Institute. Any delay in credit will not be entertained by the Institute.
- (k) Performance Security (or) Security Deposit: The successful contractor shall provide a performance security towards satisfactory performance of the contract and it shall be valid for 15 months. Performance security shall be submitted within 15 days from the date of receipt of letter of award or work order, whichever is earlier. The performance Security shall be in the form of Bank Guarantee. It shall be submitted in the format given in this document. The performance security shall be sent to the Registrar in sealed envelope with the forwarding letter indicating BG No. purposed of the BG, etc. The amount of the security shall be 3 % (three percent) of the contract value. The performance security shall be valid until the duration of the contract.

The performance security shall not bear any interest, and is liable to be forfeited for unsatisfactory services (or) violation of conditions under this contract during the entire tenure of this contract.

#### 16. Eligibility Criteria & Bid Evaluation:

(a) Eligibility Criteria for Work Experience.

To become eligible for participating the bidders shall satisfy the following work experience criteria

The Bidders should have satisfactorily completed or on-going similar works (i.e. works specified in this tender document) in State Govt/ Central Govt/Central Autonomous Bodies/Central Public Sector Undertaking organizations for a period of one year, during the seven years ending previous day of last date of submission of bids as below.

This should be certified by an officer not below the rank of Executive Engineer or equivalent.

One similar completed or on-going works of value not less than ₹ 107.82 lakhs

or

Two similar completed or on-going works of value not less than ₹ 80.86 lakhs

or

Three similar completed or on-going works of value not less than ₹ 53.91 lakhs

(b) Bidder shall have valid 33kV electrical license from central or any state government, registration certificate of firm/company, GST registration certificate, PAN card.

- (c) Bidder shall have its own office within the states of Andhra Pradesh/ Telangana/Tamil Nadu/ Karnataka.
- (d) Bidder shall submit IT returns to Tax authorities for the last three years.

Note: Copy of documentary proof for fulfilling all the above conditions and shall be submitted as a part of technical bid.

- (e) Bidder shall visit the IIT Tirupati and get themselves acquainted with the campus conditions like (location of the campus, area of campus, type of fittings, installations, technology, nature of work etc.) to access the required workforce, tools, plants, machinery & equipment etc. before submitting the offer. An undertaking letter (Annexure III) shall be submitted.
- (f) Bidder shall submit the Annexure -V for minimum workforce support required for the PART -A works.
- (g) Following documents shall be submitted along with technical bids.
  - 1. Tender fee & EMD payment details (Annexure I).
  - 2. Undertaking for Terms & Conditions (Annexure II).
  - 3. Undertaking for IIT Tirupati visit before submitting the offer (Annex- III).
  - 4. Undertaking not to sublet the work (Annexure IV).
  - 5. Undertaking for minimum workforce support required for PART-A works (Annexure V)

Failure in compliance of any one of the above conditions will lead to disqualification of technical bids. The financial bids (price bid) of only technically qualified bidders will be opened online by a committee of members and the result will be displayed on the **www.eprocure.gov.in** which can be seen by all bidders who participated in the tender.

- 17. Eligible bidders shall quote percentage rates. Contractor must ensure to quote percentage rate above/below on the total amount of the tender. Lowest percentage (L1) quoted among the technically qualified bidders will be considered.
- 18. If the lowest percentage quoted is not within the justified limit, negotiation will be conducted with the Lowest (L1) bidder. If two or more bidders quote the same L1 percentage, then sealed revised offer will be obtained from them and the lowest rate among them will be the L1 percentage for award. In case the revised offer also results in a tie, then the L1 will be decided on the basis of draw of lots in the presence of concerned bidders.
- 19. Rates quoted shall be inclusive of Contractors & Employee's contribution of EPF and ESI to be paid to the concerned authorities. Entire workforce deployed shall be covered by EPF & ESI. Payment of EPF & ESI contributions is sole responsibility of the Contractor and Contractor shall indemnify to IIT Tirupati in this regard.
- 20. The IIT Tirupati reserves the right to accept or reject any or all tenders without assigning any reason thereof.
- 21. All documents, registrations should be valid as on the date of opening of tender.
- 22. Bidders are advised to attend the **Pre Bid meeting** on the date mentioned in critical data sheet for any clarifications.

#### **GENERAL CONDITIONS OF CONTRACT**

- 23. All modifications leading to changes in the contract with respect to technical and/or commercial aspects, including terms of delivery, shall be considered valid only when accepted in writing by IIT Tirupati by issuing amendment to the contract. IIT Tirupati shall not be bound by any printed conditions, provisions in the contractor's BID, forms of acknowledgement of contract and other documents which purport to impose any condition at variance with or supplement to contract.
- 24. The contractor shall not assign, sublet or transfer the contract or any part thereof or any benefit or interest therein or there under without the written consent of IIT Tirupati. If any with the consent of IIT Tirupati also, shall not establish any contractual relationship between the subcontractor (s) and the IIT Tirupati and shall not relieve the contractor of any responsibility, liability, or obligations under the contract and the contractor shall be responsible for the acts, defaults or neglects of any sub-contractor or his agent or workmen.
- 25. The contractor shall mobilize complete resources like workforce, tools etc from the date of commence of work. If the contractor fails to mobilise as above, IIT Tirupati shall have, without prejudice to any other clause of the contract, the right to terminate the contract. Contractor shall arrange required transportation facility for the workforce under this contract. IIT Tirupati will not provide any transportation for contractor workforce, tools etc.
- 26. Necessary power for operation of equipment will be made available free of cost at the nearest point available and contractor shall arrange necessary extension boards with due safety measures.
- 27. The contractor shall establish its own office with in the radius of 50 kms from the IIT Tirupati for easy access and efficient management of contract.
- 28. The contractor shall make necessary coordination with external agencies like M/s APSPDCL, M/s RWS&S and other local bodies etc., whenever required.
- 29. IIT Tirupati shall provide the required operations and maintenance log books, registers mentioned in this contract.
- 30. Engineer-in-Charge shall have authority for general supervision, overall supervision, co-ordination at site, proper utilisation of equipment and services, monitoring of performance and progress, commenting/ countersigning on reports made by the contractor's representative at site in respect of works, receipts, and consumption etc. after satisfying himself with the facts of the respective cases.

Engineer-in-charge shall have authority to follow up of supply and direction of the work, direction to stop the work. whenever such stoppage may be necessary to ensure the proper execution of the contract to reject all works/materials/services which do not conform to the contract. The Engineer-in-Charge shall have no authority to either relieve the contractor of any of his duties or obligations under this contract.

Engineer-in-Charge shall have the authority, but not obligation at all times and any time to inspect/ test/ examine/ verify any equipment machinery, instruments, tools,

materials, personnel, procedures and reports etc. directly or indirectly pertaining to the execution of the work. However, this shall not construe to imply an acceptance by the inspector. Hence, the overall responsibility of quality of work shall rest solely with the contractor.

Each and every document emerging from site in support of any claim made by the contractor shall have the counter signature/ comments of the IIT Tirupati representative/ engineer, otherwise no claim will be entertained by the IIT Tirupati.

- 31. This contract is purely a **WORKS CONTRACT** intended for carrying out all the works mentioned in this contract. At no stage this should be construed or interpreted as a LABOUR CONTRACT or SUPPLY OF MANPOWER.
- 32. WORKFORCE: Contractor shall deploy the minimum workforce support for PART - A works, throughout the contract period as committed in Annexure – V. The workforce shall be deployed based on the performance test conducted by IIT Tirupati in the relevant trade.
- 33. The contractor may have to deploy more workforce than that committed by them (Annexure – V) in order to carry-out the works within the scheduled time to the satisfaction of the Engineer-in-Charge. However, no claim can be accepted for deploying more workforce than that committed for.
- 34. Only persons with known antecedents and good conduct shall be deployed. Persons who are capable, qualified and experienced in relevant fields only shall be deployed. Contractor shall be responsible for the conduct of the workforce deployed in case of any defects noticed in workforce employed. Contractor shall withdraw the same immediately and replace such workforce with a suitable substitute to ensure efficient and effective services.
- 35. The contractor shall avoid frequent replacement of working staff and shall do so only with the prior approval of Engineer-in-Charge. Whenever any worker is absent due to any reason, the contractor shall deploy a substitute worker immediately so as to ensure trouble free service.
- 36. The contractor shall maintain strict discipline among its workforce and shall abide by and conform to all rules and regulations promulgated by the IIT Tirupati governing the operations. If IIT Tirupati feel that the conduct of any of the contractor's workforce is detrimental, the IIT Tirupati shall have the right to request for the removal of such workforce either for incompetence, unreliability, misbehaviour, security reasons etc. while on or off the job. The contractor shall comply with any such request to remove such workforce at contractor's expense unconditionally. The contractor will be allowed a maximum of seven working days to replace the workforce by competent qualified workforce at contractor's cost.
- 37. The contractor shall solely and exclusively be responsible for engaging or employing the workforce for the execution of this work. All workforce engaged by the contractor shall be in its pay roll and be paid by them. IIT Tirupati will have no liability whatsoever concerning the workforce engaged for this contract. The contractor shall make regular and full payment of wages along with statutory dues in cash in the presence of the representative of IIT Tirupati to the workmen within

7<sup>th</sup> day of the following month irrespective of whether the contractor has raised the bill or not and furnish necessary documents whenever required by the competent authority. It shall be the responsibility of the contractor for any dispute arising between them and their workforce. IIT Tirupati indemnified against losses, damages or claims arising thereof.

- 38. There will be no relations between IIT Tirupati and the workforce engaged by contractor under the contract. No claims for any employment in IIT Tirupati will be entertained or tenable. It shall be the sole responsibility of the contractor to regulate and effect any terms of employment with the engaged workforce without any liability whatsoever to the IIT Tirupati.
- 39. The contractor shall be solely liable for any accident or injury that may happen to any of his workforce engaged in the contract. The IIT Tirupati shall not be liable for, or in respect of, any damage or compensation payable at law in respect of, or in consequence of, any accident or injury to any workforce in the employment of the contractor and the contractor shall indemnify and keep indemnified the IIT Tirupati against all such claims, damages, compensations and proceedings. The contractor shall forthwith report to the IIT Tirupati all cases of accidents to any of his workforce and shall make every arrangement to render all possible assistance and aid to the victims of the accident. The IIT Tirupati will not take any responsibility to provide safety equipment and devices to workmen and any consequential accident due to non-provision of safety devices will be to contractor's account. The contractor shall ensure implementation of all necessary safety precautions in respect of various activities contemplated in the scope of the contract.
- 40. **FOCAL POINT:** Maintenance Engineer/Supervisor employed by the contractor will be focal point for IIT Tirupati. Maintenance Engineer/Supervisor shall report to the Engineer-in-charge daily for taking necessary instructions issued to the contractor and same shall be signed and acknowledged. Maintenance Engineer/Supervisor shall be responsible for taking necessary action on behalf of the contractor at site.
- 41. **TOOLS & PLANTS:** No tools and plants will be supplied by the IIT Tirupati. All the tools and equipment, scaffolding, centring (including coir ropes), ladders and the items like insulated cutting plier, insulated screw driver, insulation resistance tester, earth resistance tester, line tester, double test lamp set, tong tester, tools, padlocks for Lock-out Tag-out system, etc. for the services, works under this contract shall be arranged by the contractor at no extra cost to the IIT Tirupati. For storing the above tools and equipment safely, necessary storage space will be provided by the IIT Tirupati. However, it is the contractor's responsibility to safe guard all his property. IIT Tirupati is nowhere responsible for loss of contractor's property, tools, appliances, equipment etc.

Contractor shall provide minimum tools to every maintenance team i.e. one-line tester, insulated screwdriver set, insulated cutting plier etc.

42. No claim, whatsoever, either for loss of contractor's property, tools, appliances, equipment etc., or accident to workforce, during the contract, will be entertained by the IIT Tirupati. The workforce deployed on the work shall evince particular care

and necessary precaution shall be bestowed where service to be maintained lies in the vicinity of electric lines and cables, both exposed and underground. Any damage to men or property of IIT Tirupati due to careless operation and any consequential losses shall be to contractor's account. In the event of shocks, electrocution or damage to men or property, especially due to careless working, all consequential losses will be debited to the contractor. The IIT Tirupati will not be responsible for payment of any compensation on such account. The contractor shall take all precautionary steps to avoid any accidents resulting in damages to men and property.

43. The contractor or his workforce shall not cause any damage to the equipment / tools / plants and any of the properties of the IIT Tirupati during the period of this contract. If any damage is caused, the same shall be made good by the contractor at his own cost and risk in a manner approved by the Engineer-in-Charge. All activities shall be so carried out as not to damage IIT Tirupati property or existing sanitary/water supply/electric service lines. Any damage or loss to IIT Tirupati property due to rough or careless handling will be to contractor's account.

Any kind of accident that may occur at working area during this contract period will entirely be the responsibility of the contractor and IIT Tirupati will not be liable for any such accidents. Contractor shall indemnify the IIT Tirupati against any claims from any agencies/ individuals arising out of any accidents of any nature

## 44. PAYMENT TERMS & CONDITIONS

### <u>for PART – A (ANNUAL ELECTRICAL OPERATIONS & MAINTENANCE</u> <u>SERVICES):</u>

- (a) The contractor shall submit the monthly bills in triplicate in respect of a particular month in the first week of the next month.
- (b) Contractor shall submit the monthly bills for service charges (i.e. clause 79, s. no. 1.00 of schedule of quantities) and the payment towards services shall be made per month, effective within 30 days after receipt of monthly bills and after certification by Engineer-in-charge. The amounts to be made per month shall be kept firm during the contract period and any request for enhancement of the rates due to any reason shall not be entertained.
- (c) Contractor shall submit the monthly bills for materials used for replacement of faulty materials. Payment towards replacement of faulty material with brand new spares shall be released on monthly basis effective within 30 days after receipt of monthly bills and after certification by Engineer-in-charge. The rates of materials shall be as per the rates quoted. Any request for enhancement of the rates due to any reason shall not be entertained.
- (d) For the items not covered in the BoQ shall be as per the clauses mentioned somewhere in this tender for respective works.
- (e) The wages paid to the worker by the contractor shall not be less than the rates notified by the Chief Labour Commissioner (Central), from time to time with regard to the minimum wages applicable to the respective categories of worker. In case of revision of the wages, the contractor shall have to pay the minimum

wages at the revised rate without fail and contractor will not be allowed to get the differential amount from IIT Tirupati.

- (f) Payment shall be made to the contractor after production of documentary evidence about making payment of minimum wages to their employees engaged through this contract.
- (g) Entire workforce deployed shall be covered by EPF & ESI. Payment of EPF & ESI contributions is sole responsibility of the Contractor and Contractor shall indemnify to IIT Tirupati in this regard. Non-payment of EPF & ESI contributions to the Government as per the extant rules will be viewed seriously. Documentary evidence for payment of EPF and ESI shall be provided along with bill for making necessary payment.
- (h) The contractor shall ensure that the bill submitted for the respective months must be supported with the documents confirming the EPF, ESI contribution along with documentary evidence confirming the payment done to the workforce.
- (i) Any shortage in the attendance of workforce committed by the contractor is not acceptable. In case of shortage of workforce on exceptional grounds suitable substitute shall be deployed. In case of continuous absence of workforce (more than two days), a liquidity damage of ₹ 1000.00 per day per person shall be recovered from monthly bills. Any loss incurred to the IIT Tirupati due to the shortage of workforce shall also be recovered from monthly bills.
- (j) Payment to the contractor would be strictly on certification of Engineer-In-Charge w.r.t satisfactory services.
- (k) Payment shall be made after deduction of GST and any other taxes deductible at source under the law in force. The applicable taxes and duties will be paid against documentary evidence.
- (1) In case of complaint of non-fulfilment of any obligation under the contract, IIT Tirupati reserves the right to withhold the payments due to them and out of such amount or amount of security held, if any or amounts likely to fall due to them (but without obligation to do so) to make such payment as it may consider necessary for smooth and unhindered working.

#### for PART – B (MINOR ELECTRICAL WORKS):

- (m) Contractor shall submit the bills after completion of works in all aspects along with the copy of work order, measurements of quantities etc. Payment to the contractor would be strictly on certification of Engineer-In-Charge with respect to satisfactory completion of works.
- (n) Payments shall be released within 30 days from the date of submission bills.
- (o) Payment shall be made after deduction of GST and any other taxes deductible at source under the law in force. The applicable taxes and duties will be paid against documentary evidence.
- 45. **INSURANCE:** The contractor shall, at his own expense, arrange appropriate insurance to cover all risks assumed by the contractor under this contract in respect of its personnel deputed under this contract as well as contractor's equipment, tools and any other belongings of the contractor or their personnel during the entire

period of their engagement in connection with this contract. IIT Tirupati will have no liability on this account.

- 46. <u>**TECHNICAL SPECIFICATIONS:</u>** All works are to be carried out as per current specification prevailing in the BIS, Indian Electricity Rules, CPWD, statutory norms prescribed by local bodies like CEA, Fire Authorities and directed by the Engineer-in-Charge.</u>
- 47. **DURATION OF CONTRACT:** The contract shall remain valid for a period of 12 (twelve) months from the starting date of contract period. IIT Tirupati reserves the right to extend the contract on whole or part thereof up to 100% of the value at its discretion provided the successful tenderer has completed the work satisfactorily. However, IIT Tirupati reserves the right to terminate the contract at any time before the expiry of the normal tenure in case service is found to be deficient/ unsatisfactory.

IIT Tirupati reserves the right to review the performance and if the performance is not satisfactory during initial period of three months, the work is likely to be terminated. Contractor has to forego the Performance Bank Guarantee amount.

- 48. <u>UNIFORM, SAFETY SHOE, SAFETY HELMET & IDENTITY CARDS:</u> Three sets of Uniform for each workforce i.e. Pant, Shirt along with Shock Proof Safety Shoe & Identity cards etc. shall be provided within 15 days of commencement of work. Uniform should be in decent manner. Colour will be decided by the Engineer-in-Charge. All workforce shall wear uniform, safety shoe, safety helmet & identity cards while on duty.
- 49. **SAFETY:** The contractor shall be responsible for the safety of all its workmen/employees during the period of execution of the work. The contractor shall provide all safety equipment's like safety shoes, safety helmets, safety belts, 33 kV & 11kV electrical safety hand gloves, etc., to all its workmen/employees to ensure their safety during execution of the work. No single person is allowed to do any electrical operations, at least two persons shall available in such case. The IIT Tirupati shall not be held responsible in case of any accidents, mishaps etc. to the contractor and its employees. Contractor shall provide first-aid facility at the site for his workforce. Contractor shall report all accidents/ near misses etc., along with the root cause analysis and action taken reports to IIT Tirupati.
- 50. <u>ACTS & LAWS:</u> The contractor shall be deemed to have acquainted himself with the Indian Income Tax Act 1961, Indian Companies Act 1956, Indian Customs Act 1962, Indian Electricity Act 2003, Factories Act 1948, Indian Mines Act 1952, Pollution Control Regulation and other related Acts & Laws prevalent in India and as amended from time to time. The contractor shall strictly adhere to various labour laws, rules, regulations and notifications issued there under from time to time.
- 51. <u>LABOUR LICENSE</u>: The Necessary Labour License for employment of workers shall be obtained by the contractor immediately on receipt of Letter of Award/Letter of Commencement/Work Order from the Labour Officer concerned from the authorities (The Deputy Chief Inspector of Factories / Assistant Commissioner of Labour as the case may be). The license shall be amended and /

or renewed wherever, there is an increase in the workmen employed by him or in the event of contract being extended or renewed. The Contractor shall inform the license number to the IIT Tirupati before taking up the work.

Contractor shall be responsible to maintain, at site, relevant labour engagement register for inspection by Labour Enforcement Authorities as and when called for. Any fine/compensation levied by appropriate authority for failure to maintain required labour records at site, will be to contractor's account.

- 52. **<u>RECORDS</u>**: The books of accounts shall be maintained by the contractor as per applicable rules more specifically indicating the attendance, acquaintance of wages paid, EPF & ESI etc., and the IIT Tirupati shall have the right to inspect these records at any point of time and take necessary action to levy compensation for non-compliance of these provisions.
- 53. **DEATH, BANKRUPTCY:** If the Contractor dies or dissolve or go into bankruptcy, or being a corporation cause to be wound up except for reconstruction purposes or carry on its business under a receiver, the executors, successors or other representatives in law of the estate of the Contractor or any such receiver, liquidator, or any person in whom the contract may become vested, shall forthwith give notice thereof in writing to IIT TIRUPATI and shall remain liable for the successful performance of the contract, and nothing aforesaid shall be deemed to relieve the Contractor or his successors of his or their obligations under the contract under any circumstances. IIT TIRUPATI may terminate the Contract by notice in writing to the Contractor.
- 54. **FORCE MAJEURE:** Force majeure is an event beyond the control of contractor and not involving the contractors fault or negligence and which is not foreseeable. Such events may include, but are not restricted to acts of the IIT Tirupati/ contractor either in its sovereign or contractual capacity, wars or revolution, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts, and freight embargoes. The decision about force majeure shall rest with IIT Tirupati which shall be final and binding.

If there is delay in performance or other failures by the contractor to perform obligations under its contract due to event of a force majeure, the contractor shall not be held responsible for such delays/failures.

If a force majeure situation arises, the contractor shall promptly notify IIT Tirupati in writing of such conditions and the cause thereof within fifteen days of occurrence of such event. Unless otherwise directed by IIT Tirupati in writing, the contractor shall continue to perform its obligations under the contract as far as reasonable/practical and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of force majeure for a period of exceeding sixty days, either party may at its option terminate the contract without any financial repercussion on either side. 55. ARBITRATION: Except where otherwise provided for in the contract all questions and disputes relating to the meaning of the works, specifications and instructions hereinbefore mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the work or failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the sole arbitration of the Dean Planning & Infrastructure of IIT Tirupati and if Dean Planning &Infrastructure is unable or unwilling to act, to the sole arbitration of some other person appointed by the Dean Planning &Infrastructure, willing to act as such arbitrator. The cases referred to arbitration shall be other than those for which the decision of the Engineer-in-Charge is expressed in the contract to be final and conclusive. There will be no objection if the arbitrator so appointed is an employee of IIT Tirupati and that he had to deal with the matters to which the contract relates and that in the course of his duties as such he had expressed views on all or any of the matters in dispute or difference.

The arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason, Dean P&I as aforesaid at the time of such transfer, vacation of office or inability to act, shall appoint another person to act as arbitrator in accordance with the terms of the contract. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor. Subject as aforesaid the provision of the Arbitration & Reconciliation Act 1996 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceeding under this clause.

It is a term of the contract that the party involving arbitration shall specify the dispute or disputes to be referred to arbitration under this clause together with the amount or amounts claimed in respect of each such dispute. The arbitrator(s) may from time to time with consent of the parties enlarge the time for making and publishing the award.

The work under the contract shall, if reasonably possible, continue, during the arbitration proceedings and no payment due or payable, to the contractor shall be withheld on account of such proceeding.

The Arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties fixing the date of first hearings. The arbitrator shall give a separate award in respect of each dispute or difference referred to him. The venue of arbitration shall be such place as may be fixed by the Arbitrator in his sole discretion. The award of the arbitrator shall be final, conclusive and binding on all parties to this contract.

#### SCOPE OF WORK & SPECIAL CONDITIONS OF CONTRACT

# <u>PART – A</u>

# (ANNUAL ELECTRICAL OPERATIONS AND MAINTENANCE SERVICES)

56. Total campus/buildings are divided as following zones for ease of administration.

•	
1. Laboratory Block - 1	
2. Laboratory Block - 2	
3. Old Classroom Block	
4. New Class Room Block	
5. Dining Block	
6. Hostel Block - A	
7. Hostel Block - B	South campus zone
8. Hostel Block - C	
9. Hostel Block - D	
10. Hostel Block - E	
11. Hostel Block - F	
12. Indoor Sports Block	
13. Maintenance Office	
14. Administration Building	
15. Department Block - 1	
16. Department Block - 2	7
17. Central Instrumentation Facility Block	Academic zone
18. Lecture Hall Complex	
19. Engineering Unit Office	
20. Helium & Nitrogen Plant	
21. Incubation Centre	
22. Hostel Block - 1	
23. Hostel Block - 2	Hostel zone
24. Dining Block	
25. Sports Utility Block	
26. Director Residence	
27. Type – B Quarters	
28. Type – C (1,2,3 & 4) Quarters (4 nos)	
29. Type – D Quarters	Residential zone
30. Type – E Quarters	
31. Type – F Quarters	
32. Visitors Hostel	
33.33/11 kV Main Receiving Substation	
34.11kV Main Receiving Substation	1
35.11/0.433 kV ESS - 1	1
36.11/0.433 kV ESS – 2 & HVAC Plant	1
37.11/0.433 kV ESS – 4	1
38.11/0.433 kV ESS – 5	1
39.11/0.433 kV ESS – 6	1
40.11/0.433 kV ESS – South campus	External zone
41.600 kLD WTP & Fire Fighting Pump House	

42.55 kLD WTP
43.325 kLD STP
44.275 kLD STP
45.110 kLD STP
46. Over Head Tank (Drinking Water)
47. Over Head Tank – 1 (Flushing Water)
48. Over Head Tank – 2 (Flushing Water)
49.20 kL Underground Diesel Storage Tank
50. Main Gate
51. North Gate
52. South Gate
53. External Lighting

- 57. Contractor shall provide dedicated maintenance workforce for South campus, Academic, Hostel, Residential and External zones. Every zone shall have minimum one maintenance team (team shall consist of one skilled electrician and one semiskilled electrician). One zone team shall not be deployed to other zones. Any short falls, adjustments in this matter is strictly not acceptable. Contractor shall maintain sufficient maintenance workforce to provide eligible leaves, holidays as per the governing rules and regulations, laws, acts and to meet aforesaid requirements.
- 58. Apart from the above, contractor shall provide dedicated workforce for operations on shift basis, as per the details mentioned below. Each shift shall be operated by minimum one operations team (team shall consist of three skilled electricians). Any short fall, adjustments in this matter is strictly not acceptable. Operations teams shall attend all urgent and emergency complaints including which arises after office hours (i.e. 17:30 hrs to 9:00 hrs) and holidays. Contractor shall maintain sufficient operations workforce to provide eligible leaves, holidays as per the governing rules and regulations, laws, acts and to meet below said requirements.

S.	Service Building	Shift - A	Shift - B	Shift – C
No.				
1	33/11 kV Main Receiving Substations, 11kV Main Receiving Substation, ESS- 1, 2, 4, 5, 6 & South campus	06:00 - 14:00	14:00 - 22:00	22:00 - 06:00
2	110 kLD STP, 55 & 600 kLD WTP	06:00 - 14:00	14:00 - 22:00	22:00 - 06:00

- 59. The contractor shall employ highly skilled Maintenance Engineer/Supervisor to supervise all the Annual Electrical Operations and Maintenance Services works mentioned in this tender document i.e. PART A works. Maintenance Engineer/Supervisor shall be the focal point as mentioned clause no. 39.
- 60. Educational qualifications and experience for the above mentioned workforce shall comply with below table.

Workforce	Educational	Minimum	
	Qualifications	<b>Experience in Years</b>	
Maintenance Engineer/	Diploma in E.E.E/	03	
Supervisor	B.Tech in E.E.E.		
Skilled Electrician	I.T.I. in Electrical	03	
Semi-Skilled Electrician	I.T.I. in Electrical	01	
Note: The operational workforce deployed for WTP, STP and Substations shall			
have relevant experience in the respective fields.			

#### LT DG SETS:

61. The contractor shall operate during the power outages/as per requirement & maintain the following DG sets which have been installed in IIT Tirupati.

Rating	Quantity	Make
1010 kVA	3	
625 kVA	2	M/s Jakson
500 kVA	2	(Cummins Engine & Stamford Alternator)
250 kVA	4	
160 kVA	1	M/s KOEL
25 kVA	1	(Kirloskar Engine & Alternator)
62.5 kVA	2	M/s Power Engineering (India) Pvt. Ltd.
		(Escorts Engine & Stamford Alternator)

- 62. The following operational responsibilities of DG sets are included in contractor scope but not limited to.
  - 1. Auto & Manual operations of D.G. sets, hourly recording technical parameters like voltages, currents, frequency etc., and other parameters like start & stop timings, fuel levels (before and after every operation), total running hours (after every operation) in DG operational log book.
  - Daily trail run of all DG sets to check for any abnormalities, leakages etc. and recording the engine lube oil levels, coolant levels, battery terminal voltage in DG daily log books. If any abnormalities found during daily trail runs, lube oil & coolant levels, battery terminal voltage etc. same shall be recorded in remarks column and brought to the notice of maintenance team and IIT Tirupati.
  - 3. Recording the preventive & breakdown maintenance activities in DG maintenance register and intimating the maintenance team and IIT Tirupati about next schedule of preventive maintenance as recommended O&M manual of O.E.M. Next schedule of preventive maintenance shall be displayed on substation notice board.

The following maintenance responsibilities of DG sets are included in contractor scope but not limited to.

4. Transporting fuel from 20kL underground storage tank to each substation/DG set and filling the fuel tanks/day service tanks located at respective

substation/DG sets, whenever required. Required transportation facility will be provided by IIT Tirupati.

- 5. Maintaining the DG sets as per the guidelines of the OEM to minimize the downtime & trouble free operation of DG sets. All breakdowns & troubles shall be attended within the 24 hours.
- 6. Attending the remarks recorded in daily log books, maintaining the DG sets as per the guidelines of the OEM to minimize the downtime & trouble free operations. Performing the preventive & breakdown maintenance activities through OEM (or) its authorized service agency and as per the recommendations of OEM. Contractor shall arrange all necessary OEM recommended, original and brand new spare parts and consumables required to accomplish the job, with the prior approval of IIT Tirupati. Contractor shall submit the obtained quotation along with the price list catalogue to IIT Tirupati for obtaining the necessary approvals.
- 7. Payments against the spare parts, consumables, service charges of OEM (or) authorized service agency, transportation & freight charges will be released as per the actuals to the contractor against submission of tax invoices supporting with copy of original bills and only after satisfactory services. It is fully contractor responsibility to obtain the satisfactory service. No payment will be released to the contractor for unsatisfied services. No advance payment will be released to the contractor.

#### SUBSTATIONS:

63. The contractor shall operate & maintenance the following Substations.

33 kV Main Receiving Substation
11 kV Main Receiving Substation
11 kV/433 V South Campus Substation
11 kV/433 V ESS - 1
11 kV/433 V ESS - 2
11 kV/433 V ESS - 4
11 kV/433 V ESS - 5
11 kV/433 V ESS - 6
500 kVA Packaged Substation (Incubation centre)

- 64. The following operational responsibilities of substations and its equipment's are included in contractor scope but not limited to.
  - 1. Manual switching ON & OFF of H.T. feeders, Transformers, L.T. distribution feeders, APFC panels, AMF panels etc. at all Substations, as and when required and maintaining substation daily log books for all operations including tripping. Tripping of any feeder, equipment etc., shall be informed to IIT Tirupati in due course of time.
  - 2. Power interruptions from M/s APSPDCL feeders shall be recorded in daily log books of 33kV & 11kV Main Receiving Substations.
  - 3. Arrangement of shut down of feeders as and when required taking all due precaution and with due permission of IIT Tirupati, except in emergency when shutdown becomes unavoidable for safety reasons. Same shall be recorded in

daily log books. Permit to work certificate shall be issued for breakdown & preventive maintenance only after ensuring all safety norms and Lock-out Tagout (LOTO). Padlock shall have only single key and shall be handed over to the working person.

- 4. Switching on of any feeder shall be done with extreme safety and as per the standard operating procedures. Work permits shall be closed before energizing any feeder.
- 5. Rack-in & Rack-out operations of VCB's, Cable Earthing Trucks, Bus Earthing Trucks, ACB's whenever required with extreme safety and precautions.
- 6. Maintaining the check list log book to ensure the watering to all earth pits at every substation (including 33kV & 11kV yards), blue colour of silica gel at transformers breathers, no oil leakages at transformers on daily basis.
- Recording the 33kV & 11kV APSPDCL energy meter parameters like voltages, currents, frequency, power factors, maximum demand, imported kWh, exported kWh, imported kVAh, exported kVAh etc. on hourly basis. Coordinating with M/s APSPDCL in case of breakdowns, fuse off calls etc.
- 8. Recording all technical parameters like incoming voltages, currents, frequency, power factor etc. on hourly basis at every substation in operational log book.
- 9. Recording the solar power generation details from respective building solar energy meters on daily basis in solar energy log books.
- 10. Operating all the substations with minimum breakdown time and abiding to the safety rules, Indian Electricity Act 2003, Indian Electricity Rules 1956, CEA Regulations, local governing laws etc.

The following maintenance responsibilities of substations and its equipment's are included in contractor scope but not limited to.

- 11. Performing the preventive maintenance activities on HT switch gear, Transformers, LT switch gear like internal cleaning of VCB's, ACB's, Capacitor banks, Transformers, bus bars, CT's & PT's, all compartments of HT panel, LT panel, removal of dust/dirt, cleaning with approved solvents & tightening of nut-bolts of terminations etc., dismantling and cleaning of arcing chutes, arcing contacts, isolating contacts, cleaning of all fixed & moving contacts with approved solvents and cleaning, lubricating the tripping & closing mechanism and also to ensure free movement of breaker on guide channels complete, as required and checking of IR (Insulation Resistance), safety interlock checks etc. as per prevailing maintenance schedule with due safety and as per the OEM instructions and recommendations.
- 12. Work permit shall be applied before commencing any maintenance activity. Any work shall be carried out only after receiving the permit to work clearance and the permission of IIT Tirupati.
- 13. Earth pit resistances shall be measured as per prevailing maintenance schedule and same shall be recorded in register. If the measured resistances are found high, necessary maintenance shall be done.
- 14. Faulty components, equipment's including but not limited to MCCB's, MCB's, Fuse's, CT's, PT's, VCB's, ACB's, protection relays, master trip relays, auxiliary relays, terminal blocks, any allied its components of aforesaid items,

etc. shall be serviced/repaired/replaced in due course of time through an OEM or its authorized service agency and as per the recommendations of OEM. If required, contractor shall arrange all necessary OEM recommended, original and brand new spare parts and consumables, with prior approval of IIT Tirupati. Contractor shall submit the obtained quotation along with the price list catalogue to IIT Tirupati for obtaining the necessary approvals.

- 15. Payments against the spare parts, consumables, service charges of OEM (or) authorized service agency, transportation & freight charges will be released as per the actuals to the contractor against submission of tax invoices supporting with copy of original bills and only after satisfactory services. It is fully contractor responsibility to obtain the satisfactory service. No payment will be released to the contractor for unsatisfied services.
- 16. All equipment's shall be maintained as per the guidelines of the OEM to minimize the downtime & trouble free operation. All breakdowns & troubles shall be attended within the 24 hours. Details investigation to be carried out for any breakdowns/ incidents and Root Cause Analysis shall be submitted to IIT Tirupati within 2 days.

#### **STP's, WTP's & Fire Fighting Pump House:**

65. The contractor shall operate & maintain the following STP', WTP's and Fire Fighting Pump House.

600 kLD WTP	
55 kLD WTP	
110 kLD STP	

- 66. The following operational responsibilities of STP', WTP's and Fire Fighting Pump House and its equipment's are included in contractor scope but not limited to.
  - 1. Operating the STP's & WTP's as per the Standard Operating Procedure.
  - 2. Operating the Electrical & Mechanical equipment's like MDB Panels, PLC panels, Motors, Pumps, Valves etc. as per the requirements and for the smooth operations of STP's & WTP's.
  - 3. STP and WTP Intake and Treated water records shall be maintained on daily basis.
  - 4. Coordinating with M/s RWS&S for any issues related to Raw Water Intake Supply.
  - 5. Daily checks for healthiness of the Diesel and Electrical operated Main and Jockey pump sets, Sprinkler pump sets.

The following maintenance responsibilities of STP', WTP's and Fire Fighting Pump House and its equipment's are included in contractor scope but not limited to.

- 6. Maintenance of Electrical & Mechanical equipment's like MDB Panels, PLC panels, Motors, Pumps, Valves etc. as per the standard maintenance procedures.
- 7. Faulty components, equipment's including but not limited to MCCB's, MCB's, Fuse's, CT's, auxiliary relays, terminal blocks, motors and pumps, any allied its components of aforesaid items, etc. shall be serviced/repaired/replaced in due

course of time through an OEM or its authorized service agency and as per the recommendations of OEM. If required, contractor shall arrange all necessary OEM recommended, original and brand new spare parts and consumables, with prior approval of IIT Tirupati. Contractor shall submit the obtained quotation along with the price list catalogue to IIT Tirupati for obtaining the necessary approvals.

- 8. Attending the remarks recorded in daily log books, maintaining the entire Electrical & Mechanical equipment's as per the guidelines of the OEM to minimize the downtime & trouble free operations. Performing the preventive & breakdown maintenance activities through OEM (or) its authorized service agency and as per the recommendations of OEM. Contractor shall arrange all necessary OEM recommended, original and brand new spare parts and consumables required to accomplish the job, with the prior approval of IIT Tirupati. Contractor shall submit the obtained quotation along with the price list catalogue to IIT Tirupati for obtaining the necessary approvals.
- 9. Payments against the spare parts, consumables, service charges of OEM (or) authorized service agency, transportation & freight charges will be released as per the actuals to the contractor against submission of tax invoices supporting with copy of original bills and only after satisfactory services. It is fully contractor responsibility to obtain the satisfactory service. No payment will be released to the contractor for unsatisfied services.

#### DAY-TO-DAY ACTIVITIES/ WORKS

- 67. The following day to day maintenance responsibilities are included in contractor scope but not limited to.
  - 1. Contractor shall attend all day to day electrical, complaints (ex: internal and external electrical installations, street light feeder pillars, street lights, area lights, bollard lights, pathway lights, UG cables (LT & HT), internal and external wiring, power sockets, electrical panel board and its components, VCB's, ACB's, MCCBs, MCBs, urinal sensors, fire alarm systems, PA systems, motors, pumps, washing machines, individual wall mounted split and ceiling mounted cassette type AC's etc...) immediately after brought to his notice and within 24 hours. Otherwise, IIT Tirupati directly (or) through another agency may attend the complaints, the expenses incurred in this case and a liquidity damage of ₹ 1,000/- shall be deducted from monthly bills.
  - 2. Contractor shall maintain all electrical installations/systems. Contractor shall repair (or) replace all damaged/ defective installation by arranging required brand new material of same make and model with the approval of IIT Tirupati, if same make and model are not available, decision of IIT Tirupati will be final on other makes and models.
  - 3. For the items not covered in PART A of Schedule of Quantities mentioned in this tender, Contractor shall submit the obtained quotation along with the price list catalogue to IIT Tirupati for obtaining the necessary approvals. Payments against the spare parts, consumables, rewinding charges, service charges, transportation & freight charges will be released as per the actuals to the contractor against submission of tax invoices supporting with copy of original

bills and only after satisfactory operation. No payment will be released to the contractor for unsatisfactory operations after doing repair and replacements.

- 4. Contractor shall provide minimum support for installation and maintenance of the Laboratory equipment's, as and when required by the IIT Tirupati.
- 5. Contractor shall maintain building wise/ area wise/ nature wise/ zone wise records of all materials/consumables used for replacement of damaged/ defective installation. Same records shall be provided to IIT Tirupati as and when required. With this data, contractor shall maintain adequate spares.
- 6. Contractor shall coordinate with OEM (or) its authorized service agency for timely service of installations/fittings that are under warranty. Contractor shall make its efforts to get the services as early as possible. Contractor may request of IIT Tirupati for any information and support in this matter.
- 7. Generally, all day to day complaints shall be attended with in working hours only i.e. from 09:00 hrs to 17:30 hrs. However, during exceptional cases like major breakdowns, emergency works, contractor shall work beyond the working hours. No additional payments will be made in this case. In case of any urgent and emergency complaints arises after office hours (i.e. 17:30 hrs to 9:00 hrs) and holidays, shift operators shall attend the same.
- 8. Contractor shall operate of required switchgear equipment's, street lights, UPS systems, lifts, motors, pumps, valves (near OHTs, buildings, WTP's, STP's and wherever located in the campus) etc. whenever required and as per the directions of IIT Tirupati.
- 9. Contractor shall take the monthly readings of energy and water meters installed for residence flats, as per the direction of Engineer-in-charge.
- 10. Contractor shall, with the approval of IIT Tirupati, provide the support in transfer of diesel from 20kL underground storage tank to internal diesel transport vehicle (to transport the diesel to DG set locations).

#### PART - B

#### (MINOR ELECTRICAL WORKS)

- 68. Contractor shall execute the minor electrical works as directed by the IIT Tirupati during the entire contract period. Work request shall be made by the IIT Tirupati for every minor work. Contractor shall prepare the required drawings, BoQ etc. and submit to IIT Tirupati for release of work commencement order. With the receipt of work commencement order from IIT Tirupati, contractor shall start the works.
- 69. Contractor shall complete the works in all aspects in due course of time and as per the BIS, CPWD specifications, IE rules and local governing laws. Contractor shall intimate the IIT Tirupati in case of any ambiguity. IIT Tirupati decision shall be the final in this case.
- 70. Contractor shall take the measurements of quantities in presence of IIT Tirupati. Payment shall be released based on the measurements only. All measurements shall be taken as per the CPWD rules/regulations/specifications.
- 71. Rates for the items covered in the tender shall be as per the percentage rate quoted by the contractor. For the items not covered in the tender taken from CPWD DSR 2018 (E&M) and the percentage rate quoted shall be applied to the same.
- 72. Rates for any extra items not covered in the tender/ CPWD DSR 2018 (E&M) shall be worked out as per the CPWD rate analysis procedures.
- 73. Contractor shall deploy the separate workforce for minor works. Operation and Maintenance workforce (as declared in annexure V) shall not be used for minor works.
- 74. Contractor shall not make any civil (or) structural alterations without the prior approval from IIT Tirupati.
- 75. No advance payments shall be released to the contractor.
- 76. Contractor shall remove all the debris after completion of works.
- 77. The resistance of Copper & GI earthings provided under these works shall be less than 1.5 ohm. The resistance of Chemical earthings provided under these works shall be less than 1.5 ohm
- 78. The following makes and models shall be used during entire tenure of the contract.

S.No.	Item	Makes
1	Copper Conductor Single Core wire-	Finolex / RR Kabel / Polycab /
1	1100v Grade (Multi Stranded) FRLS	Anchor / Asmon
		Avonplast / Sudhakar / Nelco /
2	PVC conduit & its accessories	Precision / Vasavi / Essorke / Bajaj
		Plast
3	Casing & Capping	Modi
4 MS conduite & its accessories	MS conduits & its accessories	Gupta / Kalinga / Bharat / AKG /
4 MS conduits & its accessories		RMCON
5	GI Pipes	Tata / Jindal / Kalinga
6	Modular type switches, sockets,	MK (Blenze) / Legrand (myrius)/

	regulators	Crabtree (Murano) / Schneider (Zencelo)
7	MCCB / MCB Distribution Boards, MCB's & Accessories	Legrand / Hager / Siemens (Germany) / Indo Asian / ABB / Schneider / Grabtree / L&T
8	MCCBs up to 160A-Thermomagnetic Release	Legrand / Siemens (Germany) / ABB / Hager / Schneider / Indo Asian / L&T
9	MCCBs above 160A-Electronic	GE / Legrand / Siemens (Germany) /
9	Release/ Microprocessor Release	ABB / L&T / Schneider / Indo Asian
10	Selector Switches	RISHAB / VAISHNAV / GE / L&T
11	LED Light fittings and accessories	Indoor: Philips / Wipro
10		Outdoor: Bajaj / K-Lite
12	Electronic ballast	Philips / Bajaj/ Crompton/ Osram
13	LT UG cables - 1100 Volt Grade	Universal / CCI Tropodure / Gloster / Polycab / KEI / NICCO
14	Cable Glands, lugs, sockets (copper & aluminium)	Dowells / Cabend / Jainson
15	Indication Lamp-LED	RAAS / Rishab / L&T / Siemens
16	Contactors	L&T / Siemens/ Legrand / BCH
17	Time Switch	L&T / Legrand/ GE / MK
18	Ceiling fans	Orient PSPO (New Breeze) / Polar / Crompton Greaves
19	BLDC fans	Super fan / RR / Panasonic / Kale Brayan / LUKER / Atomberg
20	Exhaust fan (Metal Blade) / Fresh air fan	Khaitan / Almonard / Orient / Crompton Greaves
21	Wall mounting/pedestal mounting fans	<b>1</b>
22	Air Circulator	Almonard / Crompton Greaves / Orient
23	Cable management system	MK / Legrand/ Schneider / OBO
24	Time Switch (PV)	MK/ Legrand/ L&T
25	Chemical Earthing (Maintenance Free)	JEF Eco Safe / Ashlok / Ine / Protec Ames / Tercel / JMV / Ecosafe / OBO

Note: The contractor shall submit test reports for all the materials / equipment. If any make is not in accordance with the tender specification it will not be accepted even if the make is indicated in the above list.

- 79. Apart from above works, Contractor shall provide skilled and unskilled man power as and when required by the IIT Tirupati for any contingent works as per the percentage rate quoted by the contractor.
- 80. Schedule of Quantities

S. No	Description of item	Each	Qty	Rate	Amount
	Part-A (Annual Operations & Maintenance Works)				
1.00	Annual Electrical Operations and Maintenance Services (for certified work force as per annexure - V)		12	₹ 8,69,784.24	₹ 1,04,37,410.94
2.00	Supplying of following accessories for replacement in item no.1 as and when required during the AMC period.				
2.01	1200mm, 20 - 24W LED Batten Light	Each	50	₹ 300.00	₹ 15,000.00
2.02	600mm * 600mm, 36W LED Recess Type Light Fitting	Each	15	₹ 2,500.00	₹ 37,500.00
2.03	LED Drivers (36V, 1Amp) for LED Light Fittings	Each	15	₹ 650.00	₹ 9,750.00
2.04	5A 3 pin top	Each	50	₹ 37.00	₹ 1,850.00
2.05	15 A 3 pin top	Each	20	₹ 50.00	₹ 1,000.00
2.06	6 A one way modular type switch	Each	20	₹ 85.00	₹ 1,700.00
2.07	16 A one way modular type switch	Each	20	₹ 132.00	₹ 2,640.00
2.08	6 A 5 pin Modular socket	Each	20	₹ 111.00	₹ 2,220.00
2.09	16 A /6 A modular socket	Each	20	₹ 175.00	₹ 3,500.00
3.00	Supplying of following consumables for 110kLD STP operations in item no.1 as and when required during the AMC period.				
3.01	Diammoniaum Phosphate (for 110 kLD STP)	kg	1500	₹ 28.00	₹ 42,000.00
3.02	Urea (for 110 kLD STP)	kg	1500	₹ 6.91	₹ 10,365.00
3.03	Jaggery (for 110kLD STP)	kg	600	₹ 57.50	₹ 34,500.00
3.04	Sodium Hypochlorite 8% Solution (for 110kLD STP)	kg	4000	₹ 80.00	₹ 3,20,000.00
3.05	Liquid Bacterial Culture (for 110kLD STP)	Ltr	15	₹ 2,154.00	₹ 32,310.00
3.06	Ferric Alum (for 110kLD STP)	kg	100	₹ 10.00	₹ 1,000.00
4.00	Supplying of following consumables for 55kLD WTP operations in item no.1 as and when required during the AMC period.				
4.01	Rock salt (for 55kLD WTP)	kg	3000	₹ 6.16	₹ 18,480.00
4.02	Harness Testing Kit (for 55kLD WTP)	Each	4	₹ 800.00	₹ 3,200.00
4.03	Sodium Hypochlorite 8% Solution (for 55kLD WTP)	kg	350	₹ 80.00	₹ 28,000.00

5.00	Supplying of following consumables				
	for 600kLD WTP operations in item				
	no.1 as and when required during the				
5.01	AMC period.	1	1715	<b>T</b> 00 00	7.2.70.000.00
5.01	Sodium Hypochlorite 8% Solution	kg	4745	₹ 80.00	₹ 3,79,600.00
5.02	(for 600kLD WTP)	1.~	20440	Ŧ ( 1(	<b>F</b> 1 <b>25</b> 010 40
5.02	Rock salt (for 600kLD WTP)	kg	20440	₹ 6.16	₹ 1,25,910.40
5.03	Sodium Hypochlorite 8% Solution (for 600kLD WTP, UF)	kg	5475	₹ 80.00	₹ 4,38,000.00
5.04	HCL 30% Solution (for 600kLD WTP)	kg	1095	₹ 11.00	₹ 12,045.00
5.05	Harness Testing Kit (for 600kLD WTP)	Each	12	₹ 800.00	₹ 9,600.00
5.06	NaOH 48% PH Dosing/ PH Booster	kg	3285	₹ 64.00	₹ 2,10,240.00
	(for 600kLD WTP)	0			7 - 7
	PART A T	OTAL			₹ 1,21,77,821
	Part-B (Minor Electrical Works)				
6.00	Point wiring in PVC conduit/PVC	Points	20	₹ 990.00	₹ 19,800.00
	casing capping, with modular type				,
	switch/regulator wiring for light				
	point/ fan point/ exhaust fan point/				
	call bell point/ 6 amps switched				
	socket with 1.5 sq.mm FRLS PVC				
	insulated copper conductor single				
	core cable in surface/ recessed with				
	casing capping/PVC conduit, with				
	modular switch, modular plate,				
	suitable GI / PVC box, ceiling rose,				
	round block and earthing the point				
	with 1.5 sq.mm FRLS PVC insulated				
	copper conductor single core cable				
	etc as required and instructed by the				
	engineer in-charge.				
7.00	Wiring for group controlled (looped)	Points	5	₹ 555.00	₹ 2,775.00
	light point/fan point/exhaust fan				
	point/ call bell point ( without				
	independent switch etc.) with 1.5 sq.				
	mm FRLS PVC insulated copper				
	conductor single core cable in				
	surface/ recessed PVC conduit/				
	casing capping, and earthing the				
	point with 1.5 sq. mm FRLS PVC				
	insulated copper conductor single				
	core cable etc. as required and				
	instructed by the engineer in charge.				

8.00	Supplying of pre wired following				
	type of LED fittings complete with				
	all accessories on wall/ceiling/false				
	ceiling including connections with				
	1.5 sqmm FRLS PVC insulated				
	single core copper conductor wires				
	and earthing etc as required. The				
	LED fittings will be supplied as				
	instructed by the Engineer in charge				
8.01	1200mm, 20 - 24W LED Batten	Each	10	₹ 300.00	₹ 3,000.00
	Light				
8.02	600mm * 600mm, 36W LED Recess	Each	5	₹ 2,500.00	₹ 12,500.00
	Type Light Fitting				
9.00	Installation, testing and	Each	15	₹ 168.00	₹ 2,520.00
	commissioning of pre-wired,				
	LED/ fluorescent fitting / compact				
	fluorescent fitting of all types,				
	complete with all accessories and				
	tube/lamp etc. directly on ceiling/				
	wall, including connections with 1.5				
	sq. mm FRLS PVC insulated, copper				
	conductor, single core cable and				
	earthing etc.				
	as required				
10.00	Supplying and fixing of fan hook	Each	5	₹ 250.00	₹ 1,250.00
	with double anchor fastener as				
	insisted by Engineer in charge				
11.00	Installation, testing and	Each	5	₹171.00	₹ 855.00
	commissioning of ceiling fan,				
	including wiring the down rods of				
	standard length (up to 30 cm) with				
	1.5 sq. mm FRLS PVC insulated,				
	copper conductor, single core cable				
	etc. as required.				
12.00	Installation of exhaust fan in the				
	existing opening, including making				
	good the damage, connection,				
	testing, commissioning etc. as				
	required.				
12.01	Up to 450 mm sweep	Each	5	₹ 363.00	₹ 1,815.00
13.00	Supplying and fixing of following				
	sizes of PVC casing capping along				
	with accessories in surface.				
13.01	20 mm x 15 mm	Metre	20	₹ 84.00	₹ 1,680.00
13.02	25 mm x 15 mm	Metre	100	₹ 90.00	₹ 9,000.00
13.03	32 mm x 15 mm	Metre	100	₹ 92.00	₹ 9,200.00

13.04	50 mm x 19 mm	Metre	50	₹ 158.00	₹7,900.00
13.05	50 mm x 50 mm	Metre	50	₹ 421.00	₹ 21,050.00
14.00	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit/ PVC casing capping as required.				
14.01	3 x 1.5 sq. mm	Metre	100	₹ 54.00	₹ 5,400.00
14.02	3 x 2.5 sq. mm	Metre	100	₹ 75.00	₹ 7,500.00
14.03	6 x 2.5 sq. mm	Metre	50	₹ 142.00	₹ 7,100.00
14.04	3 x 4 sq. mm	Metre	50	₹117.00	₹ 5,850.00
14.05	6 x 4 sq. mm	Metre	50	₹ 221.00	₹ 11,050.00
14.06	6 x 6 sq. mm	Metre	50	₹ 326.00	₹ 16,300.00
15.00	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required				
15.01	20 mm	Metre	20	₹ 146.00	₹ 2,920.00
15.02	25 mm	Metre	20	₹ 165.00	₹ 3,300.00
16.00	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
16.01	20 mm	Metre	50	₹ 84.00	₹ 4,200.00
16.02	25 mm	Metre	100	₹ 90.00	₹ 9,000.00
16.03	32 mm	Metre	50	₹ 92.00	₹ 4,600.00
17.00	Supplying and fixing suitable size PVC/GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	Each	25	₹ 401.00	₹ 10,025.00
18.00	Supplying and fixing suitable size PVC/GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch,	Each	50	₹ 495.00	₹ 24,750.00

	connections etc. as required.				
19.00	Supplying and fixing suitable size PVC/GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 nos. 3 pin 5/6 A modular socket outlet and 2 nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non- residential buildings).	Each	25	₹ 582.00	₹ 14,550.00
20.00	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
20.01	8 way, Double door	Each	2	₹ 1,760.00	₹ 3,520.00
20.02	12 way, Double door	Each	2	₹ 2,053.00	₹4,106.00
21.00	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required. (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
21.01	4  way  (4 + 12),  Double door	Each	1	₹ 5,651.00	₹ 5,651.00
21.02	8  way  (4+24),  Double door	Each	1	₹ 7,744.00	₹ 7,744.00
21.03	12  way  (4+36),  Double door	Each	1	₹ 9,828.00	₹ 9,828.00
22.00	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
		Each	20	₹ 100.00	<b>Ŧ</b> 2 000 00
22.01	Single pole	Lach	20	₹ 199.00	₹ 3,980.00

22.03	Triple pole	Each	20	₹ 826.00	₹ 16,520.00
22.04	Triple pole and neutral	Each	5	₹ 1,092.00	₹ 5,460.00
23.00	Providing and fixing following				
	rating and breaking capacity and				
	pole MCCB with thermomagnetic				
	release and terminal spreaders in existing cubicle panel board				
	including drilling holes in cubicle				
	panel, making connections, etc. as				
	required.				
23.01	125 A, 16 KA, TPMCCB	Each	2	₹ 4,145.00	₹ 8,290.00
24.00	Supplying and fixing following				
	rating, four pole, (three phase and				
	neutral), 415 volts, residual current				
	circuit breaker (RCCB), having a				
	sensitivity current 30 mA in the				
	existing MCB DB complete with				
	connections, testing and				
24.01	commissioning etc. as required. 40 A	Each	5	₹ 2,626.00	₹ 13,130.00
24.01	40 A 63 A	Each	2	₹ 2,777.00	₹ 5,554.00
25.00	Supplying and fixing DP sheet steel enclosure on surface/ recess along	Each	10	₹ 848.00	₹ 8,480.00
	with 25/32 A 240 V "C" curve DP				
	MCB complete with connections,				
	testing and commissioning etc. as				
	required.				
26.00	Supplying and fixing TP sheet steel	Each	10	₹ 1,146.00	₹ 11,460.00
	enclosure on surface/ recess along				
	with 16/25/32 A 415 V "C" curve TP				
	MCB complete with connections,				
	testing and commissioning etc. as				
27.00	required.	Set	20	₹ 6 016 00	₹ 1 24 220 00
27.00	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick	Set	20	₹ 6,216.00	₹ 1,24,320.00
	including accessories, and providing				
	masonry enclosure with cover plate				
	having locking arrangement and				
	watering pipe of 2.7 metre long etc.				
	with charcoal/ coke and salt as				
	required.				
20.00				<b>.</b>	7 6 7 7 0 0 0
28.00	Supplying and laying 25 mm X 5	Metre	50	₹ 131.00	₹ 6,550.00
	mm G.I strip at 0.50 metre below				
	ground as strip earth electrode, including connection/ terminating				
	menuting connection/ terminating				

r					
	with G.I. nut, bolt, spring, washer				
	etc. as required. (Jointing shall be				
	done by overlapping and with 2 sets				
	of G.I. nut bolt & spring washer				
	spaced at 50mm)				
29.00	Providing and fixing 25 mm X 5 mm	Metre	50	₹ 483.00	₹ 24,150.00
	G.I. strip in 40 mm dia G.I. pipe				
	from earth electrode including				
	connection with G.I. nut, bolt,				
	spring, washer excavation and re-				
	filling etc. as required.				
30.00	Providing and fixing 25 mm X 5 mm	Metre	100	₹ 206.00	₹ 20,600.00
50.00	G.I. strip on surface or in recess for	mene	100	X 200.00	<b>X</b> 20,000.00
	connections etc. as required.				
31.00		Set	20	₹ 11 704 00	₹ 2 25 880 00
51.00	Earthing with copper earth plate $600$	Set	20	₹ 11,794.00	₹ 2,35,880.00
	mm X 600 mm X 3 mm thick				
	including accessories, and providing				
	masonry enclosure with cover plate				
	having locking arrangement and				
	watering pipe of 2.7 metre long etc.				
	with charcoal/ coke and salt as				
	required.				
32.00	Providing and fixing 25 mm X 5 mm	Metre	50	₹ 1,224.00	₹ 61,200.00
	copper strip in 40 mm dia G.I. pipe				
	from earth electrode including				
	connection with brass nut, bolt,				
	spring, washer excavation and re-				
	filling etc. as required.				
33.00	Supply, fixing testing and	Set	20	₹ 11,400.00	₹ 2,28,000.00
	commissioning of advance chemical				
	gel earthing system of 01 number of				
	UL listed copper bonded earth				
	electrode along with 50 Kg of JK				
	Reslow grounding minerals.				
	8 8				
	Earthing Electrode Technology -				
	Copper Bonded Steel Rod, Length of				
	the electrode = $3 \text{ mtr}$ , Rod dia. = $25$				
	mm, Copper bonding thickness =				
	254 microns		1.0.5		
34.00	Providing and fixing 25 mm X 5 mm	Metre	100	₹ 1,009.00	₹ 1,00,900.00
	copper strip on surface or in recess				
	for connections etc. as required.				
35.00	Single run of 4 sqmm multistranded	Metre	50	₹ 56.00	₹ 2,800.00
	copper wire in a suitable PVC pipe				
	and clamps				
36.00	Single run of 6 sqmm multistranded	Metre	50	₹ 67.00	₹ 3,350.00
	copper wire in a suitable PVC pipe				

	and clamps				
37.00	Single run of 10 sqmm multistranded copper wire in a suitable PVC pipe and clamps	Metre	50	₹ 96.00	₹ 4,800.00
38.00	Single run of 16 sqmm multistranded copper wire in a suitable PVC pipe and clamps	Metre	50	₹ 133.00	₹ 6,650.00
39.00	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.				
39.01	Up to 35 sq. mm (clamped with 1mm thick saddle)	Metre	100	₹ 39.00	₹ 3,900.00
39.02	Above 35 sq. mm and up to 95 sq. mm (clamped with 25x3mm MS flat clamp)	Metre	100	₹ 104.00	₹ 10,400.00
40.00	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.				
40.01	Up to 35 sq. mm (clamped with 1mm thick saddle)	Metre	100	₹ 33.00	₹ 3,300.00
40.02	Above 35 sq. mm and up to 95 sq. mm (clamped with 25x3mm MS flat clamp)	Metre	100	₹ 74.00	₹ 7,400.00
41.00	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required :				
41.01	240 sq. mm	Set	1	₹ 19,314.00	₹ 19,314.00
41.02	300 sq. mm	Set	1	₹ 19,314.00	₹ 19,314.00
42.00	Skilled man days as when required by the IIT Tirupati for any contingent works	Man Days	50	₹ 1,060.41	₹ 53,020.70
43.00	Unskilled man days as when required by the IIT Tirupati for any contingent works	Man Days	50	₹756.82	₹ 37,840.96
	PART B T	OTAL			₹ 13,00,083
	ТОТА	L			₹ 1,34,77,904

Note: At least 50% of spare parts and consumable mentioned in schedule of quantities (i.e. from item 2.00 to 5.06) will be ensured during entire tenure of this contact period. Remaining items / quantities mentioned in schedule of quantities will be based on the actual requirements only.

All the schedule of quantities (i.e. from item 2.00 to 43.00) may increase up to 20% and contractor shall abide to provide for same quoted rates only.

**On Company Letter Head** 

ANNEXURE – I

#### **TENDER FEE & EMD PAYMENT DETAILS**

To The Executive Engineer, Engineering Unit, IIT Tirupati, Merlapaka (V), Yerpedu (M), Tirupati (Dt)-517619. Andhra Pradesh.

#### Sub: Annual Electrical Operations and Maintenance Services & Minor Electrical Works at IIT Tirupati, Merlapaka (V), Yerpedu (M), Tirupati (Dt).

Sir,

We, the undersigned, declare that the Tender Fee & EMD is submitted as per the tender document and the payment details are as given in below table.

Particular	Amount	Payment Reference Details	Payment Date
Tender Fee	₹ 1,500/-		
EMD	₹ 2,69,558/-		

Signature and Seal of the Bidder:

#### **UNDERTAKING FOR TERMS & CONDITIONS**

To, The Executive Engineer, Engineering Unit, IIT Tirupati, Merlapaka (V), Yerpedu (M), Tirupati (Dt)-517619. Andhra Pradesh.

#### Sub: Annual Electrical Operations and Maintenance Services & Minor Electrical Works at IIT Tirupati, Merlapaka (V), Yerpedu (M), Tirupati (Dt).

Sir,

I / We hereby offer to carry out the work of Annual Electrical Operations and Maintenance Services & Minor Electrical Works at IIT Tirupati, Merlapaka (V), Yerpedu (M), Tirupati (Dt).

I / We hereby confirm and declare that I / We have carefully read, understood & complying the above referred tender document including instructions, terms & conditions, scope of work, schedule of quantities and all the contents stated therein. I / We also confirm that the rates quoted by me / us are inclusive of all taxes, duties etc., applicable as on date.

I / We agree to execute all the work referred to in the said documents upon the terms & conditions contained in the tender document.

Signature and Seal of the Bidder:

ANNEXURE – III

#### UNDERTAKING FOR IIT TIRUPATI SITE VISIT

To, The Executive Engineer, Engineering Unit, IIT Tirupati, Merlapaka (V), Yerpedu (M), Tirupati (Dt)-517619. Andhra Pradesh.

#### Sub: Annual Electrical Operations and Maintenance Services & Minor Electrical Works at IIT Tirupati, Merlapaka (V), Yerpedu (M), Tirupati (Dt).

I / We hereby confirm and declare that I / We have visited the IIT Tirupati on \_\_\_\_\_\_ to get acquainted with the campus conditions like (location of the campus, area of campus, type of fittings, installations, technology, nature of work etc.) to access the required workforce, tools, plants, machinery & equipment etc. before submitting the offer.

Name & Signature of IIT Tirupati Representative

(for Witness)

Signature and Seal of the Bidder:

ANNEXURE – IV

#### FORM OF UNDERTAKING FOR NOT TO SUBLET THE WORK

To, The Executive Engineer, Engineering Unit, IIT Tirupati, Merlapaka (V), Yerpedu (M), Tirupati (Dt)-517619. Andhra Pradesh.

#### Sub: Annual Electrical Operations and Maintenance Services & Minor Electrical Works at IIT Tirupati, Merlapaka (V), Yerpedu (M), Tirupati (Dt).

Sir,

With reference to the above, I hereby undertake not to sublet the work cited above, if the work is allotted to me.

Signature and Seal of the Bidder:

#### UNDERTAKING FOR MINIMUM WORKFORCE SUPPORT REQUIRED FOR PART-A WORKS

To, The Executive Engineer, Engineering Unit, IIT Tirupati, Merlapaka (V), Yerpedu (M), Tirupati (Dt)-517619. Andhra Pradesh.

#### Sub: Annual Electrical Operations and Maintenance Services & Minor Electrical Works at IIT Tirupati, Merlapaka (V), Yerpedu (M), Tirupati (Dt).

It is certifying that and we will ensure the minimum workforce as mentioned below will be deployed for annual electrical operations and maintenance services (i.e. for clause 79, s. no. 1.00 of schedule of quantities) during the entire tenure of the contract, abiding to the tender document terms and conditions. Same workforce will not be used for minor electrical works.

Minimum OPERATIONS TEAMS (each team shall consist of three skilled				
electrician)				
Service Building	Shift – A	Shift – B	Shift – C	
33/11 kV Main Receiving Substations, 11kV	1 team	1 team	1 team	
Main Receiving Substation, ESS- 1, 2, 4, 5, 6				
& South campus				
110 kLD STP, 55 & 600 kLD WTP	1 team	1 team	1 team	
Minimum MAINTENANCE TEAMS (each	team shall	consist of	one skilled	
electrician and one semi-skilled electrician)				
South campus zone		1 team		
Academic zone		1 team		
Hostel zone		1 team		
Residential zone		1 team		
External zone	1 team			
Maintenance Engineer/Supervisor (highly ski	illed)			
Maintenance Engineer/Supervisor		1 no		

However, in case of any emergency works, major breakdown works, to attend the complaints within 24 hours, extra workforce will be deployed as per requirement but we will not claim the charges for the same. I / We shall maintain sufficient workforce to provide eligible leaves, holidays for all above workforce as per the governing rules and regulations, laws, acts.

Signature and Seal of the Bidder: Date:

#### **BG FORMAT FOR SECURITY DEPOSIT**

(To be executed on non-judicial stamp paper of ₹ 200/- (Rupees Two Hundred only) or as per appropriate Stamp Act.)

**WHEREAS** on or about the (date, month, vear). M/s (Contractor name), having its registered office situated at (Postal address) (herein after referred to as Contractor) agreement bearing reference no. entered into a contract \_with Indian Institute of Technology Tirupati, Merlapaka (V), Yerpedu dt. (M), Tirupati (Dt), Andhra Pradesh - 517619 (herein after referred to as IIT TIRUPATI), for Annual Electrical Operations and Maintenance Services & Minor Electrical Works (herein after referred to as 'The contract agreement').

AND WHEREAS under the terms and conditions of the contract agreement the contractor is required to submit a Bank Guarantee for an amount of ₹\_\_\_\_\_\_ Rupees only) as performance security deposit for the fulfilment of the terms and conditions of the contract agreement, and the contractor is ready to submit a Bank Guarantee.

We \_\_\_\_\_\_ Bank do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on a demand from IIT TIRUPATI stating that the amount claimed is due by way of loss or damage caused to or that would be caused to or suffered by IIT TIRUPATI by reason of breach of any of the terms and conditions of the said contract agreement. 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  $\mathbf{\xi}$  \_\_\_\_\_\_ plus interest @ 12% per annum from the date of demand for payment till the actual date of payment made by us.

We undertake to pay to IIT TIRUPATI any money so demanded notwithstanding any dispute or disputes raised by the contractor in any suit or proceeding pending before any court or tribunal relating thereto, our liability under these present being absolute and unequivocal.

The payment so made by us under this guarantees shall be valid discharge of our liability for payment thereunder and the contractor shall have no claim against us for making such payment.

We\_\_\_\_\_\_ Bank further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said contract agreement and that it shall continue to be enforceable till all the dues of IIT TIRUPATI under or by virtue of the said contract agreement have been fully paid and its claims satisfied or discharged or till IIT TIRUPATI certifies that the terms and conditions of the said contract agreement have been fully and properly carried out by the said contractor and accordingly discharges this Guarantee. Our Guarantee shall remain in force until\_\_\_\_\_\_ and unless a demand or claim under this guarantee is made on us in writing within six months from the expiry of the Guarantee period, we shall be discharged from all liability under this Guarantee thereafter.

We \_\_\_\_\_\_ Bank, further agree that IIT TIRUPATI shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract agreement or to extent 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 IIT TIRUPATI against the said contractor and to forbear or enforce any of the terms and conditions relating to the said contract agreement and we shall not be relived from our liability by reason of any such variation, or extension being granted to the said contract agreement or for any forbearance, act or omission on the part of IIT TIRUPATI or any indulgence by IIT TIRUPATI 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.

This guarantee will not be discharged due to the change in the constitution of the Bank or the Consultant.

We \_\_\_\_\_ Bank lastly undertakes not to revoke this guarantee during its currency except with the previous consent of IIT TIRUPATI in writing.

Dated the \_\_\_\_\_day of 2022

.....

Signature of the Authorised Officer of the Bank

.....

.....

(Name and designation of the Officer)

Seal

Name, Address of the Bank (Head Office) with Phone/Fax

Nos.

Name & Address of the Branch with Phone/Fax Nos.

Validate

Help

Print

#### Percentage BoQ

Tender Inviting Authority: Executive Engineer, Engineering Unit, IIT Tirupati

Name of Work: Annual Electrical Operations and Maintenance Services & Minor Electrical Works at IIT Tirupati, Merlapaka (V),

Yerpedu (M), Tirupati (Dt), Andhra Pradesh Tender Notification No: IITT/EU/E&M/Tender/2022-23/002

Name of the Bidder/						
Bidding Firm /						
Company :						
	rer is to quote a single consolidated percentage percentages quoted are not clear, or if the rate		(Import ove/below estin			e items under the schedule of composite tender will not be entertained as lowest tenderer)
NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER	NUMBER #	TEXT #
SI. No.	Item Description	Quantity	Units	Estimated Rate in Rs. P	TOTAL AMOUNT With Taxes in <mark>Rs. P</mark>	TOTAL AMOUNT In Words
1	2	3	4	5	6	7
1	C/o IIT Tirupati					
1.01	Annual Electrical Operations and Maintenance Services & Minor Electrical Works at IIT Tirupati, Merlapaka (V), Yerpedu (M), Tirupati (Dt), Andhra Pradesh.	1.000	Nos	13477904. 00		INR One Crore Thirty Four Lakh Seventy Seven Thousand Nine Hundred & Four Only
otal in Figures			I			INR One Crore Thirty Four Lakh Seventy Seven Thousand Nine Hundred & Four Only
uoted Rate in	Figures		Select		0.00	INR Zero Only
uoted Rate in	Words				INR Zero Only	1