

**TENDER FOR OPERATION AND MAINTENANCE OF ELECTRICAL AND FIRE
FIGHTING SYSTEMS AT ICTS
SURVEY NO. 151, SHIVAKOTE VILLAGE, HESARAGHATTA HOBLI, BANGALORE NORTH**

Ref: ICTS/TIFR/2023-24/SER-40

1. NAME OF THE WORK : Operations and Maintenance of Electrical and Fire fighting systems including substations at ICTS Campus, Shivakote, Hessarghatta, Bangalore North.
2. ESTIMATED VALUE PUT TO TENDER : Rs. 82.20 Lakhs
3. EARNEST MONEY DEPOSIT : Rs. 1,64,000/-
4. DOCUMENT DOWNLOAD PERIOD : 27 March 2024 to 18 April 2024
5. PRE-BID MEETING DATE & TIME : 11.30 Hrs on 04 April 2024
6. TIME & DUE DATE OF SUBMISSION : 15.00 Hrs on 18 April 2024
7. TIME & DATE OF OPENING : 15.30 Hrs on 18 April 2024

Important Note: All bidders are requested to attend the Pre bid meeting on 04th April 2024 at 11.30 hrs at the Centre.

Online GeM Bids are invited (in 2 Part system) by the Centre Director from experienced Class-1 Electrical Contractors for operation and maintenance of primary & secondary distribution system along with Indoor substation (11/0.415 kV) equipment, HT & LT switch gears system (like VCB,ACB,MCCB with interlocking system), DG sets (not less than 500 KVA) with AMF synchronization panels, fire alarm system, fire fighting system etc.

Agency/contractor who has done similar type of work (24hrs X 7 days basis) of AMC nature of minimum of three works, each contract value not less than Rs. 33.00 Lakhs or two works, each contract value not less than Rs. 49.00 Lakhs or one work, contract value not less than Rs. 66.00 Lakhs in the last five years period with proven technical and financial capacity possessing required infrastructure for the above work only will be considered.

Tenders shall be submitted in two parts simultaneously Technical Bid and Price Bid

Technical Bid shall contain the following:

1. **EMD** as specified above in the form of Demand Draft, drawn in favour of **International Centre for Theoretical Sciences, Bangalore**, from a Nationalised/Scheduled Bank shall be submitted. Alternatively a Bank Guarantee from a Nationalised/Scheduled Bank may be provided. No other mode of payment of EMD will be accepted. Bank Guarantee shall be valid for 6 months from the date of opening. MSEs are exempted from payment of EMD subject to furnishing of relevant valid certificate for claiming exemption as per privilege rules of Government of India.
2. Entire tender document (Inclusive of Annexure-A to Annexure-E), duly signed & sealed on every page by the contractor, along with technical information. Any deviations from the tender conditions, specifications, makes etc in Annexure -C.
3. Reference of similar completed & ongoing works, with proof in the form of up to 3 major work orders of highest value for the last 3 years.
4. Organization details, proprietorship/ ownership details along with details of organization staff matrix.
5. Valid Registration Certificate of the firm and Electrical Class -1 Contractor's & Supervisory license up to HV.
6. Annual Turnover for the previous three financial years shall be at least Rs. 82.20 lakhs or more. Financial statements for the last 3 years of the contractor shall be provided.
7. PF, ESI registration copies.
8. Latest solvency certificate of at least 20 Lakhs issued by the bank.
9. PAN Card and GST Registration Certificate.
10. List of major clients where works of similar nature are carried out in the last 3 years with details of value and period of Work order. Name, address and contact details of the concerned persons, and work competition/performance certificates, if tenure completed.

Financial Bid shall contain the following:

1. **Annexure - F** - Price Bid

TENDER SUBMISSION:

Tenders shall be uploaded on the GeM portal up to **15.00 hrs on 18th April 2024**.

Technical Bid will be opened on the same day at **15.30 hrs**.

THE CENTRE RESERVES THE RIGHT to verify the particulars furnished by the applicant independently and accept/ reject the tender without assigning any reason thereof. Short listing of the agencies shall be subject to thorough verification of their credentials and inspection of works carried out by them, through a Technical Evaluation Committee of experts, constituted by ICTS. Centre reserves the right to split the order based on the technical evaluation.

IF ANY INFORMATION FURNISHED by the applicant is found to be incorrect at a later stage, they shall be liable to be debarred from tendering / taking up work in ICTS.

All the intending contractors are urged to visit the ICTS Campus, in order to have a clear idea and to see the area of work and have discussions before submitting the bids.

If clarifications are sought by the contractor during the bidding period the same should be in writing. Both the clarifications from the tenderer and the response to the clarifications from **ICTS** should be in writing and all such correspondence should be enclosed along with **COVER-I**.

Centre Director, ICTS does not bind himself to accept the lowest or any other tender, and reserves the authority to reject any or all the tenders or to allot parts of the works to different agencies without assigning any reason thereof.

NOTE: Each and every page of the offered bid shall bear the dated signature and seal of the contractor.

QUALIFYING REQUIREMENTS AND TENDER EVALUATION

A. Qualifying Requirements:

The bidder shall meet all the following minimum prerequisites and provide documentary proof for the same in the 'technical bid'-

1. Electrical AMC work experience of three works each of minimum contract value not less than Rs. 33 Lakhs or two works, each contract value not less than Rs. 49 Lakhs or one work, contract value not less than Rs. 66 Lakhs in the last five years period.
2. Valid Registration Certificate of the firm and Class I Electrical Contractors' licence and Supervisory license up to HV .
3. Organization details, proprietorship/ ownership details along with details of organization staff matrix.
4. PAN Card and GST Registration Certificate.
5. PF, ESI registration copies.
6. Annual Turnover for the previous year shall be at least 60% or more of the estimated price. Previous year's financial statement of the contractor shall be provided.
7. Latest solvency certificate of at least 20 Lakhs issued by the bank.
8. Performance Certificates issued by clients for the services rendered by the bidder.
9. List of major clients where works of similar nature are carried out in the last 3 years with details of value and period of Work order. Names, address and contact details of the concerned person, and work competition/performance certificates, if tenure completed.

B. Vendor & Bid Evaluation:

The Vendors and their bids will be evaluated as per the table given below. All the pre-qualification requirements indicated above will be checked. Depending upon the vendors meeting all the basic prerequisites, their bid will be further evaluated on the 'marks based' system given in the table below. The vendors / bids **scoring 75 or more marks** will be considered for 'price bid' opening.

NOTE:

1. The vendor shall score minimum 75 marks in the evaluation for qualifying for 'price bid opening'. The pre-qualification checks & marks evaluation pattern is given below.

2. Among the price bids opened, the lowest offer will be considered for further processing. No additional weightage will be given for the marks scored in excess of 75.
3. ICTS reserves the right to rearrange the pattern of marks for evaluation and revise the ceiling of qualifying marks as deemed fit in the given situation. Decision of ICTS will be final and binding on all. Aim is to have sufficient proposals to compare, in the event of less than 3 vendors scoring 75 & above.
4. ICTS reserves the right not to accept the lowest rate quoted by a bidder and may reject any or all the tenders without assigning any reason whatsoever.
5. Any addendum / corrigendum / extension, if required, pertaining to the NIT will be posted on GeM portal and on ICTS website only and will not be published in Newspapers. Bidders are requested to visit ICTS website regularly for any addendum / corrigendum / extension, till opening of the bid.
6. All legal suits arising out of the enquiry and subsequent letter of intent / work order, if any, are subject to jurisdiction in the Court of Law of City of Bangalore, India and no other court.

I	Pre-Qualification checklist – vendor to qualify in all the prerequisites with sufficient proof.		
A	Registration Certificate of the firm and Class I Electrical Contractors’ license and supervisory license up to HV.	Y/N	
B	PAN NUMBER / GST Registration Certificate.	Y/N	
C	Latest solvency certificate issued by the bank.	Y/N	
D	PF, ESI registration copies.	Y/N	
E	Acceptance of all terms and conditions, tender document and all Annexures duly signed on all pages	Y/N	
F	Any technical deviation indicated? If so, are they acceptable to ICTS	Y/N	
G	EMD/ Relevant certificates for exemption enclosed	Y/N	
H	Does the vendor meet the previous minimum work experience criteria?	Y/N	
I	Does the manpower deployment meet the minimum requirement indicated?	Y/N	
J	Does the firm meet all the above minimum criteria to evaluate further?	Y/N	
II	Evaluation of Vendor – Vendor having maximum experience and highest work order values among bidders will be given maximum marks. Vendors meeting the minimum requirement will be given minimum marks and additional experience and value of work orders will be given pro-rata marks.	Min. Marks	Max. Marks
A	Contractor should have a minimum 5 years’ experience in AMC of electrical systems including the HT/LT substations in Government / Semi Government Institutions.	25	30
B	The contractor should have executed minimum 3 (three) works contract value of each not less than Rs. 33.00 Lakhs or 2(two) works contract value of each not less than Rs. 49.00 Lakhs or minimum 1(one) work contract value not less than Rs. 66.00 Lakhs in the last five year period. Order Copy and work completion certificate should be enclosed.	25	30
C	Minimum 2 (two) Performance Certificates from two existing clients.	20	20
D	Proposed Qualified technical staff as per tender conditions.	5	10
E	Attended Pre Bid Meeting	0	10
	TOTAL MARKS	75	100

OPERATION AND MAINTENANCE OF ELECTRICAL AND FIRE FIGHTING SYSTEMS AT ICTS CAMPUS, SHIVAKOTE, HESSARGHATTA, BANGALORE NORTH.

1. Scope of Contract

- 1.1 The Contractor will provide services at International Centre for Theoretical Sciences, Survey No. 151, Shivakote, Hessarghatta, Bangalore North and as per the details laid down in the following annexures:
 - a) Annexure – A – Scope of work
 - b) Annexure – B – General Terms and conditions.
 - c) Annexure – C – Schedule of Deviations
 - d) Annexure – D – Statutory Obligation.
 - e) Annexure – E - Profile & Undertaking by the tenderer
 - f) Annexure – F – Price Bid
- 1.2 The details of rates and the number of personnel required for carrying out the work shall be indicated by the Contractor in the Annexure “E”.
- 1.3 Once the Work Order is issued, the Contractor will receive instructions from an Officer designated for this purpose (Engineer-in-Charge) or his authorized nominee and the Contractor hereby undertakes to abide by his/her suggestions/instructions, etc. as regards services covered in this contract.

2. Quality and scope of services

- 2.1 The Contractor shall appoint trained staff having a good bearing and maintain high standards of turnout, maintain adequate staff to ensure there is no hold up of any service for any reason whatsoever. Any deficiency in the number of staff deployed will entail penal reduction from the compensation payable as decided by the Centre. The successful Contractor as soon as the agreement is signed shall submit a list of their workmen / supervisor/ others along with a copy of the appointment order issued to them. As and when there is a change in the staff posted, a revised list shall be submitted along with a copy of the appointment order issued to the new appointee / appointees, simultaneously.
- 2.2 It is normally understood and agreed between both the parties that Centre will not be responsible or be liable for any laws that are in force / that may come into force from time to time in respect of personnel engaged by the Contractor and he will be solely responsible for the terms and conditions of their services, safety, health, statutory requirement, etc.
- 2.3 The Contractor shall depute such officers and supervisors as proposed by him, who shall be available on site to supervise the contract employees and interact on daily/weekly basis with Engineer-in-Charge regarding delivering the specified services.
- 2.4 It is understood and agreed that the Contractor will be held responsible for any disciplinary matters arising out of their employees and the Contractor will take appropriate disciplinary action against those employees found indulging in any act of indiscipline in Centre’s premises or in connection with the services referred to herein.

- 2.5 The Contractor will immediately replace any employee found to be unfit in any manner immediately or on receipt of advice from any authorized person in ICTS.
- 2.6 The Contractor shall maintain proper and detailed record for the job carried out by their employees and shall also maintain all records and returns as necessary for carrying out the work smoothly and as provided under the Contract Labour Act, Minimum Wages Act, ESI Act, PF Act, etc, as relevant and applicable from time to time.
- 2.7 The Contractor shall be solely responsible to comply with all legal and statutory requirements that arise out of this agreement and in respect of the employees engaged by the Contractor in fulfillment of the contractual obligations stated herein. An indicative list of these statutory obligations is at Annexure “D”. It is understood and agreed that the Contractor will provide suitable uniforms with company insignia, badges/ID cards with photos and safety equipment and shoes to their employees. It is the Contractor's responsibility to have them **periodically checked medically** so as to ensure that medically fit staff only is deployed for the work.
- 2.8 a) The Contract employees should be covered under all statutory requirements like ESI, PF, etc. by the Contractor and the Contractor shall comply with all the formalities in this regard. Copy of challan and Schedule of Contract Employees for payment of ESI/PF/ELI, etc. will be furnished (whether running/monthly or final) by the contractor for reimbursing the same every month.
- b) The Contractor shall pay salary and other allowances/benefits as indicated by the Contractor in their tender and accepted by ICTS. **Such salary shall be well above minimum wages.**
- c) The Centre will have the right to inspect/call for books/registers, documents in relation to all matters referred to, in this tender or agreed later on. The Centre will also have all rights to make recoveries from the compensation, if any, that any statutory agency imposes upon the Centre due to the Contractor's non-compliance with statutory obligations. A list of these as applicable at present is set out in Annexure 'D' attached. All the Contract employees should be covered under all statutory requirements like ESI, PF, etc. by the Contractor and the Contractor shall comply with all the formalities in this regard.
- d) The contractor shall maintain a muster roll, wages register of all men employed by them and all other documents and submit it to the Centre on the 1st of every month for the previous month **or** as necessary for inspection. The Contractor shall provide all facilities for inspection /books / personnel on demand by ICTS or any Statutory Authority.
- e) The contractor should provide PF A/c number, ESI Card and Photo Identity Card to the contract employees posted at ICTS. This should be done **immediately** but not later than 15 days from the date of signing the joint agreement.
- 2.9 It is clearly understood and agreed upon that neither the Contractor nor Contract employees shall have any claim on employment with Centre at any point of time and this arrangement is purely between the Contractor and the Centre for specific services for the period specified.
- 2.10 The successful Contractor shall indemnify/deemed to have indemnified the Centre for all claims/losses arising out of this tender. The Contractor is deemed to have indemnified the Centre against any claim by any authority once the work order is awarded. In the event the Centre has to pay any

individual, statutory body or any agency for reasons directly or indirectly attributable to this tender, the Contractor only shall pay such claim/damages and even if the Centre is called upon to pay, such damages/penalties/cost shall be recovered from the contractor's dues /amount payable or shall be paid by the Contractor on demand from ICTS.

- 2.11 The Contractor shall follow all rules as may be existing or may be framed from time to time at ICTS on all aspects covering this tender. Material movement, entry/exit of personnel, identity card, safety, etc. shall be according to procedures existing in ICTS as amended from time to time.
- 2.12 **Bid Validity:** The rates quoted shall remain valid for a period of 180 days from the date of opening of Price Bids.

3. **Tenure & Termination**

- 3.1 The contract with the Centre will be initially for one year and if the services are found to be satisfactory, the contract may be extended for **one more year on the same terms and conditions**. The Centre reserves the right to terminate the Contract during the pendency of the Contract period if the performance is found unsatisfactory.
- 3.2 Except as provided in Clause 3.6 below, the Contract could be terminated by either side by giving one month's notice in writing. If the notice period is not given or if a shorter notice is given by the Contractor, the entire security deposit would be forfeited. Any other costs and / or damages incurred by the Centre to maintain the services contracted to the Contractor, on account of such short notice will be deducted from the dues payable to the Contractor, or shall be paid by the Contractor on demand if such dues fall short of such costs.
- 3.3 In the case of failure to complete the contract in terms of such contracts within the contract period specified in the tender and incorporated in the contract and if such work is got done by the Centre from any party at a higher rate the Contractor shall be liable to pay the Centre the difference between existing rate and the rate of the new Contract.
- 3.4 **Risk Clause:** Notwithstanding the other terms therein, the Centre at its option will be entitled to terminate the contract and to avail service from elsewhere at the risk and cost of contractor either the whole of the contract or any part which the contractor has failed to perform in the opinion of the Centre within the time stipulated or if the same performance is not available, the best and the nearest available substitute thereof. The contractor shall be liable for any loss which the Centre may sustain by reason of such risk in addition to penalty.
- 3.5 **Insolvency and breach of contract:** The Centre may, at any time, by notice in writing summarily terminate the contract without compensation to the Contractor in any of the following events:
- (a) If the Contractor being an individual or a firm, if any partner in the contractor's firm shall be adjudged insolvent or shall have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition under any insolvency act for the time being in force or make any conveyance or assignment of his effects or enter into an arrangement or composition with his creditors or suspend payment, or if the firm be dissolved under the Partnership Act, or
- (b) If the contractor being a company shall pass a resolution or the court shall make an order for the liquidation of its affairs or a receiver or manager on behalf of the debenture holders shall be appointed

or circumstance shall have arisen which entitle the court or debenture holders to appoint a receiver or manager, or

(c) If the contractor commits any breach of contract not herein specifically provided always that such determination shall not prejudice any right of action or remedy which shall have then accrued or shall accrue thereafter to the Centre provided also that the contractor shall be liable to pay the Centre for any extra expenditure he is thereby put to but shall not be entitled to any gain on re-tender.

(d) In the event of inadequate or unsatisfactory performance of duties by the Contractor, the Centre shall have the right to bring to the notice of the Contractor the default (s) on their part and the Contractor shall ensure that the said default (s) is / are not repeated and/or are duly remedied, within a period of three days from the receipt of the said notice. Failing such remedial action, or in the event of the said default (s)'s being inadequately corrected, the Centre shall have the right to immediately terminate the agreement.

3.6 Notwithstanding any other clause herein, if there is any act or omission by the Contractor or the Contract employees which jeopardizes the safety / security of the Centre including, but not limited to :

- a) Theft or pilferage of property of ICTS
- b) Fire, flooding, breakage or damage
- c) Violence or physical attack on the Campus
- d) Any act or incident which may prove detrimental to the interests of ICTS - the contract would be terminated without any notice. Further, the Contractor would be levied penalties, as appropriate by the deemed authority. The decision of the Centre Director shall be final in such matters.

4. Payment Terms:

- 4.1.1 The contractor shall submit bills after the completion of every calendar month and normally payment will be released within 15 working days from the date of submission of bill, if the bill is complete and correct in all respects and in accordance with the terms and conditions of the contract. All payments will be made after deduction of taxes and duties at source as applicable from time to time.
- 4.1.2 The monthly running bill of the Contractor will become payable at the end of each month on submission of a monthly claim to the Accounts Officer, and on due certification by the Engineer-in-Charge of satisfactory services against the claim. The Contractor's payment will be released only after disbursing the salary to contract employees every month.
- 4.1.3 The Engineer-in-Charge is authorized to deduct any amounts as determined by the Centre Director from the amounts due to the Contractor for any deficiency in services, provided by the Contractor.
- 4.1.4 Payments to the contract employees shall be transferred to the bank accounts of the **contract employees' by the 7th of the succeeding month**. The Contractor shall notify all his employees / workers of this date in their appointment order, and follow this very strictly, whether the Centre has paid the Contractor's bill or not. The proof of payment of salary and all other benefits such as bonus and overtime to the contract employees shall be submitted to accounts along with the monthly bills.

4.1.5 No claims will be entertained in respect of any discrepancy or defect or short claim if such demand is not made within 90 days of payment of the final bill.

4.2 **Performance Guarantee:** The tenderer, whose tender is accepted, will be required to furnish a performance guarantee of 5% of the tendered amount within 7 (seven) working days from the issue of LOI. This guarantee shall be in the form Demand Draft / Pay Order / Banker's cheque/ Bank Guarantee/FDR issued by a Scheduled Bank. The successful Tenderer will have to deposit the Performance Security Deposit and commence the work within 7 days of acceptance of tender. Otherwise the contract will be cancelled and EMD will be forfeited.

The performance guarantee shall be returned to the contractor, without any interest, after recording of the completion certificate for the work by the competent authority and submission of final bill by the contractor as per the joint measurement.

4.3 **Security Deposit:** Deductions towards Security Deposit shall be made from running bills @ 2.5% of the billed amount. The Security Deposit shall be released to the contractor, without any interest, after recording of the completion certificate for the work by the competent authority.

4.4 It is important for the Contractor to note that the rate quoted shall be inclusive of all taxes and duties/escalation and shall remain valid for the period of the agreement, i.e. 2 years from the date of Work Order. Any increase or decrease in the rates shall be only in respect of statutory duties / levies and such claims shall be valid only with adequate documentary evidence. Any decrease in the duties/levies during the period of agreement, shall entail corresponding reduction in the contract amount. If no details or break-up of taxes, duties/levies, etc. are indicated, it will be assumed that the quote submitted is inclusive of all taxes/levies/duties, etc.

4.5 The Contractor shall pay any claim made by the Centre for any deficiency (both tangible and intangible) in service. Such an amount may also be deducted from bills payable to the Contractor. It may be noted that the Centre shall have the right to forfeit the Security Deposit in full or part for any due/damages caused by the Contractor. If the Security Deposit or outstanding bills of the Contractor is found inadequate, then such monetary recoveries shall be effected from any amount payable to the Contractor against this or any other contract until the dues of the Centre are fully settled. If the claim of the Centre could not be met in this manner, the Contractor shall pay up all such claims if a demand is made by ICTS.

5 Safety, Security and Insurance

5.1 The Contractor shall follow all security rules of the Centre and instructions received from time to time regarding personnel identity cards, material movement, etc, of the Contractor.

5.2 During the pendency of the agreement, the contractor shall be liable fully to compensate all concerned for any loss, damage of construction of works, construction, plant & machinery, person, property, etc.

including third party risks arising due to causes attributable to the agreement. The decision of the Centre Director will be final & will be binding on both parties.

The contractor shall take Employees Liability Insurance of prescribed value for their employees. It must adequately cover all employees/workers under the Workmen Compensation Act, 1928 as amended from time to time. Before starting the work, the Contractor shall produce the original insurance policy and the license of the workers where applicable to the Centre.

6 Miscellaneous

- 6.1 The work mentioned in the schedule is only indicative. The Centre reserves the right to increase or decrease the quantum of work. The contractor shall execute the work on the same terms and conditions and rates throughout the period of agreement.
- 6.2 The contractor or his supervisor shall meet the designated Officer of the Centre every day to receive the details of issues / complaints to be attended and after attending to these complaints, a report on the same has to be submitted to the concerned Officer.

7 Dispute and Resolution

- 7.1 Any dispute or differences that may arise between the parties shall be referred to the sole arbitration of the Centre Director or his nominees and the Contractor shall have no right to object to the appointment of the Director or his nominee as the sole arbitrator. The decision of the arbitrator shall be final and binding on the parties. The venue for arbitration shall be Bangalore and no other place. The provisions of the Arbitration and Conciliation act, 1996 as / amended from time to time shall apply. The courts in Bangalore shall have exclusive jurisdiction to deal with any or all disputes between the parties.

8 Primacy of Documents

The tender documents, subsequent communication exchanged, the work order and all annexures shall be part and parcel of this agreement. If there is any discrepancy between the above documents, following order of primacy will apply: any communication issued after the work order, any pre-order correspondence as accepted jointly, followed by work order, tender documents and annexures thereof, i.e. tender documents and annexures have least primacy.

9 Amendments to Work Order / Agreement:

Any amendment to the Work Order/agreement shall be valid only if both parties have agreed to such amendment(s) in writing duly authenticated by authorized personnel of both parties.

For and on behalf of International Centre for Theoretical Sciences

Administrative Officer

ANNEXURE - A

SCOPE OF WORK

Scope of Work for Support Services for Round the clock & General shift Operation & Monitoring of various Electrical installations including substations (24Hrs X 365 days) at ICTS-TIFR, Bengaluru

ICTS has 76,500 Sqft of Academic, Seminar Room space, residential area, Utility Buildings, Sports and Dining complex, Pump houses, Playgrounds etc., and associated Electrical, Air conditioning, Fire Alarm, Fire fighting Systems, Sewage Treatment Plant and Water Sump Tanks. The Electrical work has been done by M/s J M C and Air-conditioning by M/s JMC, M/s Associated Engineers & M/s Vertex Pipeline. There are also 5 Nos. of off-campus hostels. The Scope of work includes (but is not restricted to) the following.

ICTS has critical requirements for Electric power and Air-Conditioning. In no case, an outage of power for more than 5 minutes (for critical areas) is not acceptable.

Hence, the essence of this contract is to achieve ‘Zero Breakdown’. All efforts are to be made with up-to-date maintenance to achieve this, by using predictive and proactive maintenance techniques at times, and, by strictly adhering to preventive maintenance practices and schedules. Only Class-1 certified electrical contractors who have carried out similar works with good track records shall be considered for engagement.

Contractors shall engage and deploy experienced technical staff who have experience in troubleshooting to meet this kind of requirements and handling power shutdown situations. So engaged supervisors/technicians shall have the ability to read continuous power and control circuit drawing, able to do troubleshooting and rectification. The detailed scope of work is as follows:

1. Operation, routine, preventive and breakdown maintenance of 11KV indoor and outdoor type H.T. Panel, Protective and control devices.
2. Operation and maintenance of an 11 KV substation of 1500 KVA capacity.
3. Operation and maintenance of 11 KV Ring main unit (ABB Make)
4. Operation of wind turbines and its maintenance.
5. Operation, routine, preventive and breakdown maintenance of LT PCC and Distribution panel, Main Panel, Sub panels of the Building(70 Nos Approx), Main Distribution Boards, LDBs, PDBs in all the buildings of ICTS Campus and off-campus Hostels.
6. Routine and preventive maintenance of electrical switchgear and drives, pertaining to STP and water supply from 4-6 lakh litres storage tank.
7. Operation, routine, preventive and breakdown maintenance of 2 Nos. 1250 KVA 11KV/433V transformers and controlling/protective accessories.
8. Operation & routine preventive and breakdown maintenance of 2x500kVA DG sets and 100 KVA DG sets -1Nos with AMF panels including fuel supply & maintenance of controlling/protective accessories.
9. Operation, routine, preventive and breakdown maintenance of Battery banks of all the equipment at the ICTS Campus and Off-campus Hostels.

10. Operation, routine, preventive and breakdown maintenance of Bus Ducts.
11. Operation, routine, preventive and breakdown maintenance of Capacitor Banks.
12. Operation, routine, preventive and breakdown maintenance of HT, LT cables and wirings.
13. Operation, routine maintenance of Fire Alarm Systems.
14. Operation, routine maintenance of Passenger Lift M/s. Johnson lifts.
15. Operation, routine, preventive and breakdown maintenance of Pump Houses (2-3 Lakh liters inside the ICTS compound) comprises electrical switchgear and motors approximate 4 Nos.
16. Operation, routine, preventive and breakdown maintenance of Lighting & Power Distribution Systems.
17. All the accessories and spares related to the above equipment have to be supplied by ICTS and used during maintenance.
18. Operation, routine, preventive and breakdown maintenance of the following Lighting and heating systems.
 - a. Street Lights & Flood Lights: approx. 200 Nos.
 - b. Building Light fittings: approx. 5000 Nos.
 - c. Ceiling fans: approx. 700 Nos.
 - d. Exhaust Fans: approx. 200 Nos.
 - e. Geysers: approx. 150 Nos.
 - f. All related PowerPoint: approx. 6000 Nos.
19. Addition & Alteration jobs: This contract also includes addition and alteration Jobs at various labs/buildings and also technicians should be able to handle independently Lab/building wiring work and also electrical troubleshooting and they shall be working Independently or shall be work with our departmental engineers.
20. Operation and maintenance of safety devices and earth pits.
21. Operation and monitoring of the Data Center Power Supply and Backup system.
22. Maintenance of electric switchgear and drives for Basement sump pumps, and submersible Borewell motors and STP motors.
23. EMERGENCY LOADS: Operation, general maintenance and continuous monitoring/checking of all parameters (power) pertaining to around 50 other emergency loads complete with troubleshooting and attending to minor breakdowns in the ICTS Campus. All classified emergency and critical loads are to be monitored (with corrective action) round the clock as instructed and the running condition of each is to be logged in necessary logbooks and register.
24. Documentation.
25. Any additions or alterations made in the system during the tenure of this contract (whether by the AMC contractor or any other firm or by ICTS), have to be maintained by the contractor.
26. All small fabrication works, repairs, and servicing of machines/equipment/parts therein shall have to be carried out by the contractor within a specified time. The contractor shall never say 'no' to any of the requirements of ICTS, which is in the area of AMC's technical services, as found reasonable to be entrusted onto the contractor by the Engineer In charge (Electrical).
27. All fire alarm calls and other related functional requirement calls of ICTS shall be attended to and followed up in the best interest of the centre and its activities.

Fire alarm and Fire fighting system:

 - a. Continuous monitoring and debugging of DECAM station (Alarm monitoring system)
 - b. Operation and Maintenance of Extinguishing panels (Control for automatic fire protection equipment)
 - c. Operation and maintenance of Gas/sprinkler (Automatic fire protection equipment)

- d. Charger/Battery (Power supply equipment)
28. While carrying out any of the works, if the dust is generated / the same flies and settles in the surrounding area, the same (dust) should be thoroughly cleaned. Vacuum cleaner and wiping materials shall be used in cleaning. If any markings, or scars are seen, the same to be cleanly wiped off. All attempts must be made to avoid dust/dirt/markings etc. while working.
 29. Providing all kinds of labour and the expertise required to attend to the above work is included in the scope of work. However, consumables, workshop expenses, new addition and alteration work will be paid extra as per actual rate or agreed rate as applicable.
 30. Operation and maintenance of electrical works at Hostel-1,2,3,4,5.
 31. Operation and maintenance of online UPS systems on the campus.
 32. Operation of Fire alarm systems on the campus.

LIST OF EQUIPMENT AT ICTS IS ATTACHED AS ADDITIONAL DOCUMENT

Special Conditions:

1. All works are to be carried out in accordance with relevant Indian Standards and as per Indian Electricity rule as amended. The contractor has to obtain the necessary clearance from the Electrical Inspectorate. Panel, Fittings, Equipment, Systems etc., all the components, accessories, Sub-Assembly, assemblies etc. Which are attachments or parts needed for the purpose. Any other work which is incidental or part of the above, but not specifically spelt out will also be included in the scope.
2. For carrying out the above job the contractor has to make his own arrangements for tools, tackles and measuring equipment, measuring meters, safety and protective devices for carrying out the work.
3. Contractors should deploy electrical staff who have experience in handling such power shutdown situations and have the ability to read continuous drawings of 30 pages or more and are capable of troubleshooting and rectification.
4. As the work involved is quite specialized and continuous monitoring is required, absenteeism of the contractor's employees will not be tolerated. The Electrical Engineer is authorized to make penal deductions in the bills for the absenteeism and non-compliance of the work. The contractor will ensure proper supervision all the time. In case of deficiency, the penalty will be imposed.
5. All the labours and expertise are included in the scope of work. No extra payment will be made for carrying out wiring work, routine breakdown and preventive maintenance.
6. It is presumed that the contractor will deploy suitable supervisors, and highly skilled and skilled manpower as required for the round-the-clock operation of the 11kV substation.
7. All the breakdown calls should be attended to immediately, in case frequency/work demands more manpower, the Contractor will arrange additional manpower so as not to disturb the research activities at no extra cost.
8. **It is fully the contractor's responsibility to deploy qualified Skilled technicians, semi-skilled technicians and work assistants/helpers with relevant Qualifications, Licenses hands-on experience to handle electrical, Fire alarm Systems etc. Equipment specified in the scope of work. They should be well conversant with Indian Standards, and Indian Electricity Rules and act as applicable and should have knowledge of electrical and Industrial safety practices.**

9. The contractor will ensure consistency of work and workforce, correct troubleshooting, good workmanship, follow all safety procedures and will make all necessary efforts to maintain healthy environments and reliable services.

It is purely the contractor's responsibility to get his staff acquainted with the site condition, operation and maintenance procedure, Equipment detail, Safety devices, Scope of work etc.

10. Contractors should deploy electrical staff who have experience in handling such power shutdown situations and have the ability to read continuous drawings of 30 pages or more and are capable of troubleshooting and rectification.
11. As the work involved is quite specialized and continuous monitoring is required, absenteeism of the contractor's employees will not be tolerated. **The Electrical Engineer is authorized to make penal deductions in the bills for the absenteeism and non-compliance of the work.** The contractor will ensure proper supervision all the time. In case of deficiency, the penalty will be imposed.
12. All the labours and expertise are included in the scope of work. No extra payment will be made for carrying out wiring work, routine breakdown and preventive maintenance.
13. It is presumed that the contractor will deploy skilled manpower as required.
14. All the breakdown calls should be attended to immediately, in case frequency/work demands more manpower, the Contractor will arrange additional manpower so as not to disturb the research activities at no extra cost.
15. The contractor will ensure consistency of work and workforce, correct troubleshooting, good workmanship, follow all safety procedures and will make all necessary efforts to maintain healthy environments and reliable services.
16. It is purely the contractor's responsibility to get his staff acquainted with the site condition, operation and maintenance procedure, Equipment detail, Safety devices, Scope of work etc.
17. The contractor shall depute an adequate number of staff to carry out routine work wiring work, additional project work, attending fuse calls, and preventive and breakdown maintenance so as not to disturb research activity.
18. The contractor will ensure that the deployed staff should have basic qualifications and is capable of handling work as stipulated in the scope of work.
19. In case of delay, repetition of work, non-compliance, inadequate staff etc. The penalty will be imposed as per the penalty clause mentioned in the terms and conditions.
20. The contractor shall depute an adequate number of staff to carry out routine work wiring work, additional project work, attending fuse calls, and preventive and breakdown maintenance so as not to disturb research activity.
21. The contractor will ensure that the deployed staff should have basic qualifications and is capable of handling work as stipulated in the scope of work.
22. In case of delay, repetition of work, non-compliance, inadequate staff etc. A penalty will be imposed as per the penalty clause mentioned in the terms and conditions.
23. The minimum wage of the staff should not be less than the minimum Wage Act applicable to the respective

category/experience.

24. The contractor will submit the details of minimum wages as per the Minimum Wage Act. As applicable to the respective category/Experience at the time of submission of the Tender bid.
25. The contractor will submit their detailed scheme to carry out the above work along with the tender. In case of an error in typing, a report of different figures, only stringent conditions will apply.

SCHEDULING

In a broad manner, the AMC work can be scheduled as follows (All at no extra cost)

A) ANNUALLY

1. Preventive maintenance work and servicing of 5 Nos. of 11 KV, VCB panels (Schnieder make) as per manufacturer's recommendations / standard practice, including servicing of VCB and all other panel accessories, and updating of relevant records.
2. Preventive maintenance work on HT bus-bar system, updating of relevant records.
3. Preventive maintenance work and servicing of 12 Nos. LT ACB panels as per manufacturer's recommendation / standard practice, including servicing of ACB and all other panel accessories, and updating of relevant records.
4. Preventive maintenance work on LT bus-bar system, PCCS, MCCBs, SFUS etc., updating of relevant records.
5. Preventive maintenance work on 2 Nos. of 1250 kVA, 11/0.433 KVA of transformers.
6. Preventive maintenance of energy meters, automatic change-over switches and other accessories.
7. Preventive maintenance of Protective relay testing.
8. Preventive Maintenance of the 9 Nos. of RMU for H.T line

B) HALF YEARLY:

1. Oil BDV testing of Transformer oil which could be paid at extra agreed prices, updating of relevant records.
2. Earth resistance measurement of all the Earth electrodes of the ICTS campus and Hostel-1,2,3,4,5 (about 130 Nos.Approx), at no extra cost, updating of relevant records.

C) QUARTERLY:

1. Maintenance of PDBs and LDBs and associated ELCB checking in the campus including Hostel building and recording the same in relevant log books.

D) MONTHLY

1. Billing on residential areas, guest houses, hostels and any other energy meters and submitting the same to the concerned.
2. Checking, fitting cleaning and fault rectification and recording of the following:
3. Street and security lights within the campus and on the road leading to campus (LED fixtures)
4. Periphery lights
5. Pathway lights
6. Lights and fans in the hostel and housing blocks and canteen buildings and cafeteria
7. Gym room lighting and associated electrical accessories
8. Common area lights and main entrance portico lights, spotlights etc.,
9. Contractor's running spares makeup and list submission.
10. Battery charger panel testing and recording.

12. Load the current record of each LT feeder from the sub-station.
13. Capacitor bank load current recording.

E) WEEKLY:

1. Checking the Fire Fighting Pump and taking corrective action.

F) DAILY:

1. Operation and maintenance of Electrical systems at HT & LT levels having source change-over systems (between BESCOM and standby DG set sources), protection, control and auxiliary equipment.
2. Hourly logging of system parameters and attending to all rectification works.
3. Daily test running, A-check, operation and maintenance of standby DG source in the event of BESCOM supply failure and reverting to BESCOM supply on its resumption (ensuring that the supply is stable). Hourly logging of system parameters and attending to all rectification works.
4. HT yard inspection and recording of BESCOM meter readings.
5. Checking of battery charger and battery condition of protective system batteries and DG set batteries, recording the relevant parameters.
6. Diesel stock checking and recording.
7. Updating and maintenance of all other registers.
8. Breakdown maintenance and alteration works (with special importance to critical areas, labs, lecture halls, and seminar halls).
9. Attending any other work as entrusted.
10. Checking of UPS batteries in the basement and service floors
11. Checking of Fire alarm panels and their healthiness

The Contractor, who is quoting for the bid, should have sufficient knowledge & experience in “Operation & Maintenance of 11kV Substation along with transformers, Dg sets and other switch gears”. The contractor should have the Valid License to carry out work on electrical installation issued by the Electrical Inspectorate of the respective State Government as per Rule -3 of IE 1956”. Along with their quote, they should furnish the details of the similar kind of completed works with the value of work and completion certificate, obtained from the organization where they carried out the work. The bid failing with the above details shall be rejected without any information to the bidder.

OPERATION AND TROUBLESHOOTING OF ELECTRICAL SYSTEMS

Sl No.	Nature of Duty	Details of WORK
1	Transformers Operation of Transformers- 2 nos	Daily - 24/7 hrs(3 shift basis) Round-the-clock operation of Transformers- 4 nos. This job includes safe changing over from DG source to EB(BESCOM) source without more interruption (not more than 40 secs). Hourly reading of winding temperature, oil temperature, total current, voltage, power factor, frequency

2	DG sets Operation of Diesel generating sets- 3 nos	Daily - 24/7 hrs(3 shift basis) Round-the-clock operation of 3 nos of DG sets. This job includes safe changing over during power failure within 60 secs. It also includes checking of oil temperature, water temperature, voltage, frequency, and lube oil pressure. If there are any abnormalities, troubleshooting needs to be done immediately.
3	HT/LT breakers Operation of HT/LT switch gears- 20 Nos	Daily - 24/7 hrs(3 shift basis) Switching on and off needs to be done very carefully without any accident. If any tripping occurs, the shift-in-charge should attend immediately without any major shutdown which is limited to 60 secs. This work also involves, spring charging of breakers and interlocking mechanism
4	Energy consumption recording and preparation of daily load curve Hourly energy consumption details	Daily - 24/7 hrs(3 shift basis) Recording of hourly basis energy consumption details from BESCO metering cubicle and preparation of daily load curve. This will help us control energy consumption as well as demand
5	Recording and upkeep of diesel consumption Upkeeping of diesel consumption and oil consumption details	Daily - 24/7 hrs(3 shift basis) Upkeeping of diesel consumption and oil consumption details This work involves checking the diesel level in the D.G tank and keeping a record of the same. This work also includes the unloading of diesel.
6	Troubleshooting of control systems Troubleshooting of control systems	Daily - 24/7 hrs(3 shift basis) These works involve trouble shooting of faults and failures whenever required. This also required detailed studying of panel drawings, PLC logics, breaker control circuits, AMF control circuits.
7	Operation of PV solar system	Daily - 24/7 hrs(3 shift basis) This work involves cleaning of the solar array, Preventive maintenance of the terminals, and Monitoring of the energy generation Parameter.
8	Recording of important loads at various labs and Building Important loads	Daily - 24/7 hrs(3 shift basis) This work involves recording of important loads on every two hour basis on an entire campus (almost 100 important loads at different locations). Necessary precautions need to be taken care if there are any abnormalities found

**DETAILS OF PREVENTIVE MAINTENANCE SCHEDULE OF ELECTRICAL
DEPARTMENT ICTS**

SINo.	Nature of Duty	Details of WORK
1	Transformers 11kV/433V Transformers 2 x 1250 kVA.	Weekly: General cleanliness of transformer, and surrounding area. Monthly: Checking off all the protective equipment (OTI/WTI/Bucholz etc.) Half-yearly: Oil Filtration, BDV checking, winding resistance checking, this shall be done with extra cost. Yearly: Cable terminal tightness, bus duct terminal tightness
2	DG sets 2 x 500 KVA, 1 x 100 KVA , Total = 3 nos.	Daily 'A' Check water level checking, engine oil level checking, cleaning the engine and surroundings, Running the DG for 3minute, checking oil pressure, checking coolant water temperature, checking for any leakage and recording the same in the log books.
3	HT breakers 11kV VCB indoor type- 5 Nos.	Weekly: Cleaning by vacuum cleaner Half-yearly: mechanical tripping checking, closing checking. All control wiring tightness checking Checking of spring charging motor, closing coil, trip coil and shunt release electrically. Yearly: lubricating all metal-to-metal rubbing surfaces except contacts with recommended grease Tightening all mechanical joints with torque wrenches
4	LT Air circuit breakers/ MCCBs Rating: 800A to 2000 A 12 Nos	Monthly: Cleaning by a vacuum cleaner to main contacts, arcing contacts, and jaw contacts with CRC 2- 26. Half-yearly: Insulation value checking of all the moving and fixed contacts Moving Contact operation checking by measuring the displacement if it is more necessary realignment needs to be done. Mechanical tripping checking through UV release, shunt release lubricating all metal-to-metal rubbing surfaces except contacts with recommended grease lithion 2 of HP or syntholube 10 of H.J.Leach or Balemerol Moly grease ML black for every 500 operations or 6 months Tightening all mechanical joints with torque wrenches, All control wiring tightness checking of spring charging motor, UV release and shunt release Electrically Insulation value checking of all the moving and fixed contacts
5	UPS system 100 kVA -2 Nos,	Half-yearly: Battery performance test by providing load bank, recording
6	Earthing System 130 nos. of earth pits	Half-yearly: Earth Resistance checking, for value improvement water topping up, nut bolting changing.

7	Elevators Passenger - 7nos	Monthly: General cleaning of lift machine room, DB tightness checking, car fitting and cleaning. Maintenance of Panels and other accessories as per PM schedule.
8	32 kWp Solar systems	Array cleaning and panel maintenance

Detailed Scope of work in Item wise

Item 1. Operation and Monitoring of 2x1250kVA Transformers and associated HT/LT switchgear and panels and uninterrupted power supply systems in round-the-clock shifts in par with ICTS shifts schedule. The entire work shall be executed as per the below scope of work.

A. Distribution transformer

Rating : 1250 kVA, 11kV / 433V

Qty : 2 nos

Make : Kirloskar

B. HT breaker outdoor type:

Rating: VCB, 11kV, 630A

Qty: 10 nos

Make: ABB

C. HT breaker indoor type:

Rating : VCB, 11kV, 1250A

Qty : 5 nos

Make : Schneider

D. L.T Breaker:

ACB Rating: 800A-2000A

Qty : 12 nos

Make : Schneider

Operation and monitoring of above equipment during round-the-clock operation as per ICTS shift schedule and to ensure smooth and safe operation of above HT and LT equipment. In ICTS power requirement is very critical, so the changeover should happen within 40 sec. For any reason, a power outage for more than 5 minutes is not at all acceptable. So the round the clock operation should be carried out with qualified supervision with 5 to 6 years of experience in a similar kind of operation and monitoring.

Item No 2. Operation and Monitoring of 2x500 kVA DG sets and 1x100kVA DG sets and associated AMF panels and switch gears and panels in a round-the-clock shift in par with the ICTS shift schedule. The entire work shall be executed as per the below scope of work.

a. Diesel-Generator sets

Rating : 500 kVA, 415V, 50Hz

Qty: 2 nos

Make Engine: Cummins,

Alternator: Stamford

Rating: 100kVA,
Qty-1 Nos
Make Engine: Cummins,
Alternator: Stamford

b. AMF panel

Rating: 800 Amps
Qty: 2nos
Make : Cummins & Jakson

c. Breakers & relays,

PLCs Make: Siemens
Qty: 2 nos
Make: Alstom

d. Associated Panels

Operation and monitoring of above equipment during round-the-clock operation as per ICTS shift schedule and to ensure smooth and safe operation of above DG sets either via auto mode or manual mode. In ICTS power requirement is very critical, so the changeover should happen within 40 sec. For any reason, a power outage for more than 5 minutes is not at all acceptable. So the round the clock operation should be carried out with qualified skilled technicians with 3 to 5 years of experience in similar kinds of operation and monitoring.

Item No 3. Operation and Monitoring of HT RMUs, recording of HT reading in the metering cubicle and online systems in the round-the-clock shift in par with ICTS shift schedule. The entire work shall be executed as per the below scope of work.

a. Operation of HT RMUS

HT RMUs were placed in the HT yard and along the road from Abbigere to ICTS and near the compound wall. ICTS is getting prime power from the Abbigere substation (F-6 feeder) and Soladevanahalli substation(F-2 & F-3) as a dual source. Both the feeders were connected via RMU and its output is connected to the metering cubicle. RMU makes ABB, so the vendor should have knowledge of the operation of ABB outdoor-type breakers and interlocking mechanisms.

b. Recording of HT readings

It is the shift operator's responsibility to log the energy data on an hourly basis and record the same and it should be submitted to JEs/Engineer for the record purpose. Operation and monitoring of the above equipment during round-the-clock operation as per ICTS shift schedule and to ensure smooth and safe operation of the above equipment. In ICTS power requirement is very critical, so the changeover should happen within 40 sec. For any reason, a power outage for more than 5 minutes is not at all acceptable. So the round the clock operation should be carried out with qualified skilled technicians with 3 to 5 years of experience is similar kinds of operation and monitoring.

Item No 4. Operation and Monitoring of VCBs (indoor & Outdoor), ACBs, SV panels, Capacitor panels, battery chargers, and operation of 2x 100 kVA online ups systems in the round-the-clock shift in par with ICTS shift schedule. The entire work shall be executed as per the below scope of work.

a. Operation of Indoor type VCBs

1250 Amps, Voltage : 12KV
Peak current: 25kA
Make: Schneider
Quantity:5 nos

b. Operation of Outdoor-type VCBs

630 Amps, Voltage : 11KV
Short ckt current: 20kA
Make: ABB
Quantity: 9 nos

c. Operation of Air circuit breakers

Rating : 2000A, 415V
Short ckt breaking capacity: 60kA
Make : Schneider
Quantity : 12 nos

d.Operation of SV panels

Rating : 20 kW & 12kW

e. Operation of Capacitor panel

Rating : 2x 250 kVAR
No of banks: 2
Each bank capacity: 250kVAR
Make : Epcos & Jakson
Qty: 2 sets

f. Operation of SFUs

Rating : 63A to 630A, 415V
Make : ABB/schneider/ L&T

h. Operation of 2 x 100kVA online ups systems.

Operation and monitoring of the above equipment during round-the-clock operation as per ICTS shift schedule and to ensure smooth and safe operation of the above equipment. In ICTS power requirement is very critical, so the changeover should happen within 40 sec. For any reason, a power outage for more than 5 minutes is not at all acceptable. So the round the clock operation should be carried out with qualified skilled technicians with 3 to 5 yrs experience in similar kinds of operation and monitoring.

Item No 5: Maintenance of 2x1250kVA transformers, 2x500kVA DG sets, 1x100kVA DG sets, HT (indoor & outdoor type) and LT breakers & panels, protective relays, capacitor panels, battery charger along with station batteries, engine exhaust. The entire work shall be executed as per the below scope of work.

a. Maintenance of 2x1250kVA transformers.

Preventive maintenance shall be carried out as per manufacturer recommendation on a daily/ weekly/ monthly/half yearly and yearly basis. All maintenance activities should be recorded in the respective log books and updated the same. It should be available at the substation all the time. The reports shall be submitted to respective JEs/Engineers on a daily basis.

b. Maintenance of 2 x 500 kVA DG sets, 1x 100 KVA DG set:

The preventive maintenance includes carrying out of 'A' checks, cleaning, filling up water, and coolant, and topping of diesel and oil whenever it is required. The preventive maintenance should be carried out as per the engine manufacturer recommendation and updating in the history log books of the same.

41

c. Maintenance of HT, LT and panels

The preventive maintenance should be carried out on all HT and LT panels on the campus. There are 2 nos of HT panels and 50 LT panels, all the panels should be maintained as per the preventive maintenance schedule and it should be recorded on the log books.

d. Maintenance of protective relays:

The protective relays such as OC, SC, EFR, master trip relay, reverse power relay etc. should be maintained as per the CEA /BESCOM recommendation and necessary trip testing should be carried out as per the maintenance schedule.

General requirements: The contractor shall carry out the works assigned by deploying the required number of qualified and well-experienced manpower. In general, daily the work is to be carried out in 9 hours including the lunch/tea break of one hour, on a general shift basis. Most of the work is to be carried out in general shifts. General shift manpower has to work on a general shift basis as per the shift schedule assigned every month which has to be prepared by the contractor in consultation with the ICTS engineer in charge.

The deployed persons as per requirement shall attend the general shift duties as per the ICTS yearly calendar working schedule being followed. All General shift operators are of Highly Skilled, skilled persons, and shall be well familiarized with operational flow sheet reading and referring. Also, all the equipment & systems details are to be studied & well understood as per the details of IE rule.

They have to carry out the general shift operational activities as per the assignment given by the ICTS Engr-in-charge. Operation of various systems & equipment includes taking the systems into service, keeping the system in operation as per the design requirement, taking the system out of service, carrying out OTOs (Order to Operate) for giving isolation for any maintenance work on any equipment/systems and normalization of OTOs as per the approved procedure by ICTS.

They have to monitor the routine system, and equipment parameters of all the ICTS electrical systems and they have to fill up the data sheets, as per the time interval schedule. Also shall carry out the routine changeover of equipment/testing of equipment as per the General shift surveillance schedule.

If any deficiency /deviation is found during their survey, it should be immediately reported to the ICTS official from time to time and to be coordinated with ICTS personnel along with the maintenance team for the corrective action. Also, any

other activities associated with the above assigned by ICTS officials are to be carried out from time to time.

Item No 6: Maintenance and recording of LT panels at substation along with associated switch gears, distribution boards, RCCBs, MCB's fluorescent fixtures, PLC/PLS fixtures, exhaust fans, ceiling fans, modular switch and sockets at ICTS and general maintenance of Hostel DBs and light fixtures. The entire work shall be executed as per the below scope of work.

The maintenance of the above equipment and parts shall be strictly carried out as per ICTS maintenance schedule. All RCCBs are to be tested with injection in mA and it needs to be ensured that, whether it is tripping as per the rating of RCCBs. If any device fails, it should be recorded and need to be intimate to the concerned Engr-incharge. The detailed inventory lists are indicated below.

Item No 7: Maintenance and recording of 130 nos of earthing station, maintenance of electrical systems at Hostel-1,2,3,4,5 buildings, maintenance of electrical systems at all the buildings at ICTS CAMPUS and fire alarms systems. The entire work shall be executed as per the below scope of work.

The maintenance of the earthing station should be carried out as per IE and earth resistance should be maintained at less than 2 ohm always. So necessary preventive maintenance should be carried out on the earthing station. The consumables will be provided by departmentally.

All test results before any treating and after treatment should be recorded and logged in the log book and submitted to the Engr-in-charge for further process.

The maintenance of the above equipment and parts shall be strictly carried out as per ICTS maintenance schedule. All RCCBs are to be tested with injection in mA and it needs to be ensured that, whether it is tripping as per the rating of RCCBs. If any device fails, it should be recorded and need to be intimate to the concerned engr-incharge. The detailed inventory lists are indicated below.

Item No 8: Maintenance and recording of LT panels at substation along with associated switch gears, distribution boards, RCCBs, MCB's fluorescent fixtures, PLC/PLS fixtures, exhaust fans, ceiling fans, modular switch and sockets at ICTS including Hostel- 1,2,3,4,5 and general maintenance of FA systems at ICTS Campus and Off Campus Hostel. The entire work shall be executed as per the below scope of work.

The maintenance of the above equipment and parts shall be strictly carried out as per ICTS maintenance schedule. All RCCBs are to be tested with injection in mA and it needs to be ensured that, whether it is tripping as per the rating of RCCBs. If any device is failed, it should be recorded and should be intimated to concerned engr-incharge. The detailed inventory lists are indicated below.

The tentative ICTS shift schedule is:

Sr.No	Shift Description	Shift timing *
1.	Morning shift (I-shift)	06:00 hrs to 14:00 hrs
2.	Evening shift (II-shift)	14:00 hrs to 22:00 hrs
3.	Night shift (III- shift)	22:00 hrs to 06:00 hrs
4.	General shift	09:30 hrs to 17:30 hrs

Note: The timings * as mentioned above are actual duty hours. So, accordingly, eight hours working (including one hour for tea, and a lunch break) shall be considered as one man-day of working for measurement.

PERSONNEL TO WORK AT ICTS:

The contractor has to manage and execute all the works entrusted, through a dedicated supervisor by deploying the required manpower. The contractor, after studying and understanding / gauging the requirement of ICTS, shall fix a staff pattern for regular routine works in round the clock and general shifts at his/her discretion, strictly adhere to it (which may increase during exigencies). The Contractor should indicate the No. of staff / category wise, proposed to be deployed as indicated in the form of an undertaking. The staff will be deployed on round the clock shift and general shift basis (4 shifts per day basis including general shift with week offs with reliever). These staff members shall carry out the works of both part-1 & part-2 as per the plans & schedules in consultation with the concerned engineer. These staff members shall also carry out all other works as entrusted by the concerned engineer pertaining to Electrical related work of ICTS and shall never say 'no' to any of the relevant requirements of ICTS.

All deployed workforce should have sufficient experience in round the clock operation of 11kv/433V substation and experience in maintenance of all HV & LT electrical systems. The deployed supervisors should have a valid supervisory license and all technicians should have a valid wireman license.

Contractor should provide two sets of Uniforms, Shoes, safety and protection gear, 15kV grade hand gloves, Identity cards etc., to the staff deployed, at no extra cost.

Contractor will ensure consistency of work and work force, correct troubleshooting, good workmanship, follow all safety procedures and will make all necessary efforts to maintain a healthy environment and reliable services.

If any of the staff members appointed by Contractor is found to be 'not competent', he/she has to be replaced by a right person within a stipulated time as instructed by Electrical Engineer- In-charge, ICTS.

All the relevant documents pertaining to staff deployed, like copies of job appointment order with the contractor, address proof, photocopy of ID card etc., and other details as sought shall be provided to ICTS, by the contractor under his responsibility for the correctness.

However Personnel with higher Qualification with less experience than the requirement will also be considered after verifying the suitability. ICTS reserves the right to verify the qualification and experience and accept or reject the persons based on the suitability for the job. All the original documents/certificates will be verified and copies of the document/certificates are to be produced to the Engineer in charge.

Wages of the staff deployed should not be less than as that mentioned in Minimum Wage Act applicable to the respective category/experience, as on date. The ESI, PF, ELI, bonus etc., labour law, other rules and norms requirements as found required for contracts of this nature should be met. The same details shall be submitted along with technical bid.

In no case, the contractor or his/her employees shall claim job / employment with ICTS. No transport facility shall be provided for the contractor or his employees.

It is purely contractor's responsibility to get his staff acquainted/trained with the site conditions, operation and maintenance procedure, equipment detail, safety devices, scope of work etc.,

In case of delay, repetition of work, non compliance, inadequate staff etc., penalty will be imposed as per the clause mentioned.

1. Contractor must visit the site, understand the site condition, type of work involved availability of specialized or general equipment, tools etc., for carrying out works listed herein. You may contact the Electrical Engineer or his nominee for this purpose.

2. Contractor should have class-I Government Electrical Contract License, PF, ESIC, labour license and experience in similar field as mentioned in scope of work.

3. All works to be carried out in accordance with relevant Indian standards and as per Indian Electricity Rule as amended from time to time.

For carrying out the above job the contractor has to make his own arrangements for men, tools, tackles, testing and measuring equipment, safety and protective gear/devices for carrying out the work.

4. As the work involved is quite specialized and continuous monitoring is required, absenteeism of the contractor's employees will not be tolerated. The Engineer-in-Charge is authorized to make appropriate deductions in the bills for the absenteeism and non

compliance of the work. The contractor will ensure proper supervision at all times. In case of deficiency penalty will be imposed.

5. Running of the system under abnormal conditions or in risky circumstances will attract a penalty.

6. Contractor will be responsible for any act of sabotage, misdeed, indiscipline, and negligence on the part of the contractor or his employees. Penalty or legal action, as decided by the Center Director, ICTS shall be imposed on the contractor.

S No.	Category	Skill Level	Manpower Required Shift Wise	Total Manpower Required
1	Supervisor	Highly Skilled	1 (General Shift)	1
2.	Shift Supervisor	Highly Skilled	1 Per Shift+ 1 Reliever	4
2	Electrician	Skilled	1 Per Shift + 2 General Shift+ 1 Reliever	6
3	Fireman	Skilled	1 (General Shift)	1
3	Work Assistant	Unskilled	1 Per Shift+ 1 Reliever + 1 General Shift	5
	Total Manpower			17

This is the bare minimum requirement to maintain the system of this magnitude as observed till now. **However, contractors can specify the personnel deployment pattern they propose to adopt for this work after thoroughly studying the scope of the work and clearly understanding the same by attending the PRE-BID meeting. The vendors shall have all their doubts cleared in the PRE-BID meeting. It is completely the contractor's responsibility to fix the staff deployment pattern and to fulfill the requirements of ICTS. The figure mentioned above is a minimum indicative only.**

The following are the qualification & experience prerequisites of the staff to be deployed:

Supervisor: Degree in Electrical/Electrical & Electronics Engineering or related branch with 1 years' experience/ Diploma in Electrical/Electrical & Electronics Engineering or related branch with minimum 3 years' experience/ ITI (Electrician or related trade) with minimum 5 years' experience in the relevant field/ knowledge and experience in substation of 500 KVA is required. Experience in vacuum and Air circuit breaker, DG operation and transformer maintenance is mandatory. Knowledge of underground cable fault location etc is necessary.

Shift Supervisor: Diploma in Electrical/Electrical & Electronics Engineering or related branch with 2 experience/ ITI (Electrician or related trade) with minimum 4 years experience, higher degree with related branch with 1-2 years of experience in the relevant field, mainly substation operation and maintenance. Knowledge of operating panels located at different locations, troubleshooting etc is necessary.

Technicians: ITI (Electrician or related trade) with 2 years' experience with NCVT /Apprentice with valid wireman license or higher degree in with 1-2 years of experience.

Fireman: Minimum SSLC passed with 5 years experience in Fire fighting and certification of Fire fighting training from government recognised institution.

Work Assistant: Minimum SSLC passed (wireman license is added advantage)

***Note:** All staff proposed to be deployed by the vendor shall be examined and approved for such deployment/replacement by the Centre.

The contractor has to provide the following mandatory enlisted items of ISI standards to each deployed staff at no extra cost for workplace safety.

Table A - Uniform & PPE Kits

S No.	Item Description	Quantity
1	Uniform	2 Sets per year
2	Electrical Safety Shoes	1 Pair Per Year
3	Transparent Safety Goggles	1 Pair Per Year
4	5kV Grade L.T Gloves	1 Pair Per Year
5	Mechanical hand gloves	1 pair once in 6 Months
6	Inhalation Mask	1 per Month
7	Safety Helmet	1 No. per Year
8	Reflective Jacket	1 in 6 Months
9	PVC ID Card(Computer printed)	1 per Year

If any of the staff members appointed by Contractor is found to be 'not competent', he has to be replaced by a right person within a stipulated time as instructed by Electrical Engineer- In-charge, ICTS.

All the relevant documents pertaining to staff deployed, like copies of job appointment order with the contractor, address proof, photocopy of ID card etc., and other details as sought shall be provided to ICTS, by the contractor under his responsibility for the correctness.

Wages of the staff deployed should not be less than that mentioned in Minimum Wage Act applicable to the respective category/experience, as on date. The ESI, PF, ELI, bonus etc., labour law, other rules and norms as found required for contracts of this nature should be met. The same details shall be submitted along with technical bids.

In no case, the contractor or his/her employees shall claim job / employment with ICTS. No transport facility shall be provided for the contractor or his employees.

It is purely contractor's responsibility to get his staff acquainted/trained with the site conditions, operation and maintenance procedure, equipment detail, safety devices, scope of work etc.,

In case of delay, repetition of work, non compliance, inadequate staff etc., penalty will be imposed as per the clause mentioned.

1. Contractor must visit the site, understand the site condition, type of work involved, availability of specialized or general equipment, tools etc., for carrying out works listed herein. You may contact an Electrical Engineer or his nominee for this purpose.
2. Contractor should have class-I Government Electrical Contractor License, supervisory license up to HV, PF, ESIC, labour license and experience in similar fields as mentioned in scope of work.
3. For carrying out the above job the contractor has to make his own arrangements for men, tools, tackles, testing and measuring equipment, safety and protective gear/devices for carrying out the work.
4. Running the system under abnormal conditions or in risky circumstances will attract penalties.
5. Contractor will be responsible for any act of sabotage, misdeed, indiscipline, and negligence on the part of the contractor or his employees. Penalty or legal action, as decided by the Director, ICTS shall be imposed on the contractor.

Penalty Clause:

- a) **Absenteeism:** In case of absence of any staff, penalty will be imposed at double the rate of wages or salary for the day he remains absent.
- b) **Non- Compliance of work:** In the event of failure of compliance of awarded work in stipulated time penalty will be imposed as per double of actual expenditure incurred in attending to the same by another Agency.

Any accident due to negligence in following safety procedures is purely the responsibility of the Contractor. Department is not responsible for any accidents/damages/deaths. Safety of all the staff of the Contractor is the sole responsibility of the Contractor.

Contractor shall submit a staff pattern & general scheme to carry out the above work along with the bid.

TESTING, MEASURING EQUIPMENTS, TOOLS & TACKLES:

All the tools required for carrying out the work stipulated in this document shall be provided by the Contractor at site with no extra cost/charges. But, the following minimum is a must at all times:-

Table B (Mandatory Tools for deployed Manpower)

All the Senior Technicians/Technician should be given the following:

1. One test lamp set (1 Ph.)
2. One screwdriver (Star & Flat Combo) with insulated handles.
3. One line tester inbuilt screwdriver set similar to Taparia 840.
4. One combination plier, 500V grade with insulated handles.
5. One live line tester, 500V
6. Wire Stripper
7. Knife for wire skinning
8. Nose Plier
9. Tool kit Pouch
10. Continuity Tester

Note: All above mentioned tools and accessories should be of standard make.

Following calibrated and well maintained instruments should be available at site:

1. AC/DC tong testers/Clamp meter - 2 Nos
2. Multimeter - 2 Nos
3. Digital Megger / IR tester with kit - 1 Nos
4. Earth resistance measurement instrument (0.1 Ohm LC) with kit -1 Nos
5. Phase sequence meter- 1 Nos.
6. Battery Impedance Tester -1 Nos

Note: All above mentioned tools and accessories should be standard make.

Following tools should always be available at site:

1. 6-7 to 30 – 32 size 9 metric 0 double end open spanner- 2 Set
2. 6-7 to 30 – 32 size (metric) double end ring spanner- 2 Set
3. Insulated adjustable wrenches (12 inch)- 2 Nos
4. 0.5 to 16 sq.mm hand crimping tools- 2 Nos
5. Allen keys inch/mm- 2 Set
6. Box Spanner 6-7 to 30 – 32 size- 1 Set
7. Star screwdriver set- 1 Nos
8. Flat Screwdriver set- 1 Nos
9. Heavy Duty Star & Flat Screw Drive- 2 Nos Each
10. Hexaw Frame- 1 nos
11. Hammers (1lb & 2lb)- 1 nos each
12. Soldering gun with lead & flux - 1 set
13. Impact electric drill machine with drill bits (up to 13mm drill bits for SS grade)-1 set
14. Hammering Electrical drill Machine with bit (Up to 25 mm)- 1 set
15. 15kV grade Hand gloves- 2 Pairs
16. Electrical Cutting/Grinding Machine -1 Nos

17. Electric Torch-2 Nos
18. Rain coat-2 Nos.
19. Umbrella -2 Nos.
20. Light weight A type Ladder (5ft-1Nos & 8 ft- 1 Nos)- 2
21. Air Blower - 1 No
22. Wet & dry Vacuum Cleaner -1
23. Oil Gun-1
24. Grease Gun-1

Other tools & tackles, instruments etc. as and when required, shall be arranged by contractor at no extra cost. All these shall be suitably kept at site, with contractors own security arrangement. These items should always be available for work. No work shall be partially or fully stopped for want of personnel or tools or instruments. If such an event occurs, the fine will be levied.

All these shall be suitably kept at site, with contractors own security arrangement.

NOTE: Brief details and general guideline of the above works are given in Annexure - A

ANNEXURE – B

GENERAL TERMS AND CONDITIONS OF CONTRACT

Note:

1. The employees/ workers employed shall be trained and experienced to handle the services as per the Scope of work mentioned in the Annexure 'A'. If such experienced hands are not available, either because the service is extremely specialized and only in house training is possible, at least a certain percentage of employees/workers shall be experienced / trained who shall be able to impart training / expertise to others.
2. The Contractor shall provide the name and details of his personnel. A list of all the names shall be submitted at the beginning of the contract, along with a copy of each appointment order and whenever there is a change. No personnel will be changed unless ICTS has asked for it or without advance approval of ICTS.
3. The Contractor shall ensure that no contract employees nor anyone from his side use ICTS transport to come to the work spot or return. The Contractor shall use emergency services like medical help and emergency vehicles of ICTS in the event of any accident or emergency to his employees, though all responsibility for such accidents and any injury / death and or loss / damage will fully rest with the Contractor.
4. At any point of time, there must be a minimum of 90% workers attendance per day. In any case 100% daily attendance is to be ensured. Any absence or shortage beyond this may be managed by giving over time; shortage or absenteeism beyond this percentage will be penalized including termination of the contract. Payment will however be restricted to the actual number of people as physically provided in each month.
5. The Tenderer must indicate the deviation in Annexure – C, with reasons thereof and only if such deviation (s) is/are part of the work order issued by ICTS, will the deviation (s) become part of the agreement.
6. The rates quoted shall be valid for **2 years from the date of Work Order followed by joint agreement.**

7. The Contractor shall supply as per Table-A (Uniform & PPE Kits), Table-B (Mandatory Tools for deployed Manpower), Table-C (Mandatory Equipment for work Site) within a month of award of contract and a fresh set of Uniform & PPE Kits to be issued if the contract is renewed beyond one year by the 13th month on renewal for 2nd year and 25th month on renewal of 3rd year

ANNEXURE – C
SCHEDULE OF DEVIATIONS

Sl. No.	Requirement of the Centre	Sl. No. As per schedule	Deviation Proposed

Name and Address of the Tenderer

Signature of the Tenderer

ANNEXURE – D

STATUTORY OBLIGATIONS:

The Contractor will strictly observe and follow the following statutory regulations/acts as well as any new rules / changes as applicable, during the period of this contract. He shall be solely responsible for failure to fulfill these statutory obligations. The successful bidder shall indemnify / is deemed to have indemnified ICTS against all such liabilities which are likely to arise out of the Contractor's failure to fulfill such statutory obligations. All documents, registers pertaining to this contract shall be maintained meticulously and shall be provided periodically for inspection. The salient features of the statutory regulations/acts are listed below and it is the responsibility of the selected Contractor that these regulations/acts and their amendments from time to time are strictly adhered to in totality. Even if the Contractor appointed for this contract may be exempt from any or all of the following employee-friendly legislation, it is incumbent on all Contractors to cover all their employees / workmen covered by this tender with these covers / benefits.

1. The Contract Labour (Abolition & Regulations Act, 1970):

The Contractor shall obtain and produce a license from the Labour Commissioner's office. They will maintain and submit to us for inspection on demand such records as Muster Roll, Payment Register, Advance Register, Fines Register, etc.

2. Payment of Wages Act:

It is necessary that the Contractor's employees are paid their wages payable for one month of working by 7th of the succeeding calendar month. The Contractor will receive payment from us only after you have disbursed in full the wages payable to his employees. The wages shall be distributed in our premises and one of the representatives from the Centre will be nominated to witness the disbursement of the wages, and sign the disbursement report.

3. Provident Fund Act:

The selected bidder shall cover their employees under the Provident Fund Scheme. The premia shall be paid as per existing rule partly deducted from their employees and the balance shall be by contribution from the successful bidder as indicated in Annexure B. Proof of such payment shall be submitted (including employee's and employer's contribution) every month as provided under Section 12 of the Act.

4. Employees State Insurance Scheme:

The contractor shall cover all your employees under Employees State Insurance Scheme as provided for under the relevant rules and shall remit the premium without default.

5. Minimum Wages Act (Central):

The contractor shall pay well above the minimum wages central to each of their employees. Such rates shall be the rate implied or agreed between ICTS and the Contractor.

6. Workmen's Compensation (ELI):

All employees/ workers shall be covered for injury / death under Workmen's Compensation Act 1923 by an Employer's Liability Insurance in the name of the Contractor to cover all employed by the Contractor in ICTS.

ELI premia is of the order of 3% on salary + DA as per the statutory laws and amendment.

8. Payment of Bonus Act, 1965:

Bonus shall be paid to all employees who have worked for a minimum of 30 days in the relevant accounting year shall be paid bonus. Bonus will be limited to 8.33% of total salary earned in the relevant accounting year. Bonus shall be paid every year or monthly as mutually agreed upon.

8. Karnataka Labour Welfare Fund Act 1965.

9. General:

Contribution towards PF, ESI & ELI shall be paid to the Contractor only in succeeding months on submission of proof of having paid the premium / subscription. Premia towards ELI shall be paid to the Contractor on a pro-rata basis every month on submission of original policy and receipt. All premia/ contribution / subscription collected towards such benefits shall be/shall have been promptly paid towards the purpose for which it is collected. If for any reason this has not been possible, the Contractor shall promptly inform ICTS, which will suggest ways and means to put such unpaid amounts to proper use.

Miscellaneous

We will not be responsible for death, accident or injury to the Contractor's employees engaged by him, which may arise in the course of their duty at our premises, nor shall we be responsible and be liable to pay damages or compensation to such persons or to third parties. The Contractor shall at all times indemnify and keep ICTS indemnified against all claims which may be under the Workmen's Compensation Act, 1923, or any statutory modifications thereof or otherwise for or in respect of any damages or compensation payable in consequence of any accident or injury sustained by any workman or other person/ persons at the Centre or premises, building, equipments etc. is attributable to the Contractor or his workmen, such damages shall be made good by the Contractor or his workmen.

"CONTRACTOR"

ANNEXURE – E

PART – E FORMAT OF TECHNICAL BIDS & ANNEXURES

ANNEXURE 1

APPLICATION FORM (TO BE USED FOR TECHNICAL BID)

[NOTE: On the letterhead of the applicant including full postal address, email address, telephone no. and fax no.]

Date: _____

To,
The Centre Director,
International Centre for Theoretical Sciences – TIFR
151, Shivakote, Hessarghatta
Bangalore - 560089

Sirs,

1. Being duly authorized to represent and act on behalf of.....(hereinafter referred to as “the Applicant”) and having reviewed and fully understood all the pre-qualification information provided, the undersigned hereby applies to be pre-qualified by yourselves as a tenderer for award of work(s) for maintenance the landscaped garden including shrubs, lawn, hedges, border trees and existing vegetation at TIFR Office Campus and Housing Colonies at Colaba, Mandala and Anushaktinagar as per specification attached.
2. Attached to this letter are copies or original documents defining:
 - (a) the applicant’s legal status
 - (b) the principal place of business
 - (c) the place of incorporation (for applicants who are corporations) or the place of registration and the nationality of the owners (for applicants who are partnerships or individually owned firms)
 - (d) Annexure no. II to X
3. Your agency and its authorized representatives are hereby authorized to conduct any inquiries or investigations to verify the statements, documents and information submitted in connection with this application, and to seek clarification from our bankers and clients regarding any financial and technical aspects. This letter of application will also serve as authorization to any individual or authorized representative or any institution referred to in the supporting information, to provide such information deemed necessary and requested by you to verify statements and information provided in this application, or with regard to the resources, experience ,and competence of the Applicant.
4. Your agency and its authorized representatives may contact the following persons for further information on general, personnel, technical and financial enquiries.
Contact 1: Name, email and Phone no. Contact 2: Name, email and phone.
5. This application is made with the full understanding that:
 - (a) Bids submitted by applicants will be subject to verification of all information submitted at the time of bidding
 - (b) Your agency reserves the right to:
 - amend the scope and value of the contract / bid under this project; in such event, bids will only be called from pre-qualified bidders who meet the revised requirements; and
 - reject or accept any application, cancel the pre-qualification process, and reject all applications without assigning reasons or incurring any liability thereof; and
 - (c) Your agency shall not be liable for any such actions and shall be under no obligation to inform the applicant.
6. The undersigned declares that statements made and the information provided in the duly completed application are true and correct in every detail.

Signed and sealed, Name
For and on behalf of

ANNEXURE – II

**TECHNICAL BID-
APPLICATION FORM
(FOR PRE- QUALIFICATION)BASIC TECHNICAL DETAILSOF THE BIDDER**

Sr. No	Description	Remarks (mentioned page numbers)
1.	NAME OF TENDERING COMPANY FIRM / SELECTED TENDERERS	
2.	NAME OF DIRECTORS	
3.	FULL PARTICULARS OF OFFICE	
(A)	ADDRESS	
(B)	TELEPHONE NO.	
(C)	FAX NO.	
(D)	E-MAIL ADDRESS	
4.	BANK DETAILS BANK NAME & ADDRESS: ACCOUNT TYPE: ACCOUNT NO : IFSC CODE: EMAIL ADDRESS:	
5.	REGISTRATION DETAILS :	
	(A) PAN NO. (attach copy of proof)	
	(B) GST REGISTRATION NO.(attach copy of proof)	
	(C) E.P.F. REGISTRATION NO.(attach copy of proof)	
	(D) E.S.I. REGISTRATION NO.(attach copy of proof)	
6.	DETAILS OF EARNEST MONEY / TENDER FEE DEPOSIT	
(A)	AMOUNT (RS.)	
(B)	D.D. NO. AND DATE	
(C)	DRAWN ON BANK	
8.	The Tenderer should have the Registered / Branch Office in Mumbai. (attach copy of proof)	
9.	Tenderer should provide copy of the License under Contract Labour (Regulation and Abolition) Act. (attach copy of proof)	
10	UNDERTAKING (To Be Given on Rs. 100 Non Judicial Stamp duly Notarized)	
11	Bank Solvency Certificate	

Signature of Owner/Managing Partner/Director

ANNEXURE –III FINANCIAL CAPABILITIES

Financial Year	Annual Turn Over of Rs. 1,17,00,000/- as per Audited Balance Sheet
2021-2022	Rs.
2022-2023	Rs.
2023-2024	Rs.

Financial Information in Rs.	For year 2021-2022	For year 2022-23	For year 2023-24
1. Total Assets			
2. Current Assets			
3. Total Liabilities			
4. Current Liabilities			
5. Profit before Tax			
6. Profit after Tax			
7. Net Worth			

NOTE: The above data is to be supported by audited balance sheets

1. Attach copies of audited balance sheets duly certified by the chartered accountant for all three years. Audited Balance sheet should mention the membership number of chartered accountant issued by ICAI along with full address.

EXPERIENCE OF COMPLETION OF WORKS OF SIMILAR NATURE & COMPLEXITY

(During last five years ending last day of month previous to the one in which applications are invited)

Sl. No.	Name of work / project and location	Owner or sponsoring organization	Cost of work in Lakhs	Date of commencement as per contract	Stipulated date of completion	Actual date of completion	Name and address/ telephone number of officer to whom reference may be made	Remarks

NOTE: Please attach supporting documents (completion certificates along with order copies) for the above information

Signature and seal of the Authorized Signatory of the bidder

ANNEXURE "V"**UNDERTAKING (To Be Given on Rs. 100 Non Judicial Stamp duly Notarized)**

The undersigned certify that I have gone through the terms and conditions thoroughly mentioned in the tender document & its corrigendum if issued and undertake to comply with them and will abide to it.

The rates quoted by me are valid and binding upon me for the entire period of contract.

The earnest money of Rs. _ to be deposited by me has been enclosed herewith vide Demand Draft no. _ , Dt. _ drawn on bank Branch .

I/We give the rights to ICTS Authorities to forfeit the earnest money deposited by me/ us if any delay occurs on my part for Operation and Maintenance of Electrical Systems at ICTS.

There is no vigilance / CBI case or court case pending against the firm and also no other case is pending regarding any statutory dues like EPF, ESI, Minimum Wages, Service Tax etc.

I hereby undertake to provide manpower as per directions given in the tender document.

I undertake to abide by all the statutory rules and regulations applicable with respect to my employees deputed under the tender document. I agree to indemnify/keep the Institute indemnified from and against all proceedings, claims, losses and expenses arising out of this tender or resulting from the services under this tender including (i) any claims made by the contract employees against the Institute claiming employment with it or in respect of matters which pertain to the employment with the contractor or its terms (ii) any act of omission on the part of the contract employees or the contractor leading to violation of any law, rule or regulations and (iii) any claim by any authority . In the event the Institute has to pay any individual, statutory body or any agency for reasons directly or indirectly attributable to this tender, I shall pay such claims, damages and expenses and even if the Institute is called upon to pay, such damages and/ or penalties and / or costs shall be recovered from the dues/amount payable to me or shall be paid by me on a demand from the Institute. I will co-operate with the Institute in case any proceedings arise and provide all assistance and support as required by the Institute including participation in the proceedings as a party. The indemnity clauses under this tender shall survive the expiration / termination of the tender.

I hereby declare that my firm/company has not been black listed in the past three years by any Govt. / private institution in similar type of operation i.e manpower services.

Signature of the tenderer

ANNEXURE - VI

LITIGATION DETAILS (COURT CASES/ARBITRATION)

Year	Name of the work	Name of the Client, with Address	Title of the court Case/Arbitration	Detail of the Court/ Arbitrator	Status Pending/ Decided	Disputed Amount (Current Value, the equivalent) in case of Court Cases/arbitration	Actual Awarded Amount (Rs) in decided Court Cases/arbitration

Signature and seal of Authorized Signatory of bidder

Certificate of Registration

No. ____

Date: _____

The Centre Director,
International Centre for Theoretical Sciences – TIFR
151, Shivakote, Hessarghatta
Bangalore – 560089

Dear Sir:

I/We _____ who are established and reputed manufacturers/bidders of _____ having factories/works at _____ (*address*) do hereby declare that “I/We have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India as per tender clause 6.4 of GCC. I/We hereby certify that we the undersign Bidder are not from such a country or, if from such a country, has been registered with the Competent Authority. I/We hereby certify that we fulfill all requirements in this regard and is eligible to be considered. [where applicable, evidence of valid registration by the Competent Authority shall be attached]

Yours faithfully,

(Name)

(Name of manufacturers/ Bidder)

Note: This Certificate/Undertaking should be on the **letterhead of the manufacturer/Bidder** and should be signed by a person competent and having the power of attorney to bind the manufacturer. It should be included by the Bidder in its techno-commercial un priced bid.

Annexure - VIII

Certificate for Local Content

*We [name of manufacturer] hereby confirm in respect of quoted item(s) that Local Content is equal to or more than 50% and come under ‘Class-I Local Supplier’ Category. As being ‘Class-I Local Supplier’, we are eligible for Purchase Preference under ‘Make in India’ Policy vide Gol Order No.P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020)

OR

*We [name of manufacturer] hereby confirm in respect of quoted items(s) that Local Content is more than 20% but less than 50% and come under ‘Class-II Local Supplier’ Category.

The details of the location (s) at which the local value addition made is /are as under:

- 1.....
- 2.....
- 3.....

*Strike out whichever is not applicable

Date:

Seal & Signature of the Bidder

NOTE:

- Self-certification that the item offered meets the minimum local content (as above) giving details of the location(s) at which the local value addition is made in case the bidder wishes to avail the benefits under the make in India policy, if applicable.
- In cases of procurement for a value in excess of Rs. 10 crores, the local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant in respect of suppliers other than companies) giving the percentage of local content to avail the benefits under the make in India policy, if applicable.

ANNEXURE IX

Manpower Detail Sheet

S.N	Name of staff	Qualification	Designation	Years of Experience/ Specialisation	Remarks
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					

Signature with Seal & Date

ANNEXURE - X

FORM OF AGREEMENT

This Agreement made the _____ day of _____ 2024 _____ between International Centre for Theoretical Sciences (ICTS) Bangalore, for the entering into work(s) for Operation and Maintenance of Electrical and Fire Fighting Systems at ICTS Campus, Bangalore (hereinafter called "The Employer") who enters into this Agreement of the one part and
M/s
(herein after called "The Contractor") of the other part..

Whereas the Employer is desirous that certain works should be executed by the Contractor, viz _____ ("the Works") and has accepted a Bid by the Contractor for the execution and completion of the works and the remedying of any defects therein.

Now this Agreement witnessed as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz :
 - (a) The Letter of Award;
 - (b) The said Bid;
 - (c) The General Conditions of Contract;
 - (d) Prequalification document
 - (e) Instructions to Tenderers and Specific Conditions of Contract;
 - (f) The Specification;
 - (g) The Drawings;
 - (h) The Price Bid
 - (i) Any other relevant documents referred to in this Agreement or in the aforementioned documents
3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of this work.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein the Contract Price or only such other sums as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed the day and year first before written .Signed, Sealed, and Delivered by the Said

Binding Signature for and on behalf of ICTS, Bangalore

Binding Signature of Contractor _____

In the

presence of

Witness (1) :

Witness (2) :

ANNEXURE – XI

PROFORMA FOR PERFORMANCE BANK GUARANTEE

(On a stamp paper of appropriate value from any Nationalised Bank or Scheduled Bank)

In consideration of the International Centre for Theoretical Sciences - TIFR (hereinafter called "ICTS") having agreed under the terms and conditions of Work Order No dated made between ICTS _____ and M/s

.....
(hereinafter called "the said Contractor{s}") .for the work (hereinafter called "the said Work Order")

having agreed to production of a irrevocable bank Guarantee for Rs..... (Rupees

.....
only), as a security / guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said Work Order, we (Indicate the name of the Bank)

(hereinafter referred to as "the Bank") hereby undertake to pay to ICTS an amount not exceeding Rs.

..... (Rs.....only) on demand by ICTS.

2. We (indicate the name of Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the ICTS stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor(s). 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.....(Rupees only).

3. We, the said bank, further undertake to pay to ICTS any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) in any suit or proceeding pending before any Court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.

4. We.....(indicate the name of 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 Work Order and that it shall continue to be enforceable till all the dues of the TIFR under or by virtue of the Work order have been fully paid and its claims satisfied or discharged or Purchase Officer on behalf of ICTS certifies that the terms and conditions of the said Work Order have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. We..... (indicate the name of Bank) further agree with ICTS that ICTS 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 Work Order or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the TIFR against the said Contractor(s) and to for bear or enforce any of the terms and conditions relating to the said Work Order and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the TIFR or any indulgence by the TIFR to the said Contractor(s) 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. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

7. We,..... (indicate the name of Bank) lastly undertake not to revoke this guarantee except with the previous consent of ICTS in writing.

8. This guarantee shall be valid up to....., unless extended on demand by ICTS.

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 six months of the date of expiry or the extended date of expiry of this guarantee, all our liability under this guarantee shall stand discharged.

Signed and sealed Dated the day of for (indicate the name of Bank)

* (Note: The Letter of Intent shall form part of the Agreement)

*
*

Additional Clause:

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder from a country which shares a land border with India" for the purpose of this Order means :-
 - a. An entity incorporated, established or registered in such a country; or
 - b. A subsidiary of an entity incorporated, established or registered in such a country; or
 - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - d. An entity whose beneficial owner is situated in such a country; or
 - e. An Indian (or other) agent of such an entity; or
 - f. A natural person who is a citizen of such a country; or
 - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.
- IV. The beneficial owner for the purpose of (iii) above will be as under :
 1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation -

 - a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company.
 - b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
 2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one

or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership:

3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
 4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
 5. In case of trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- VI. (To be inserted in tenders for Works contracts, including Turnkey contracts). The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

Certificate for Tenders (for transitional cases as stated in para 3 above):

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India: I hereby certify that this bidder is not from such a country and is eligible to be considered".

Certificate for Tenders:

" I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India: I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. (Where

applicable, evidence of valid registration by the competent Authority shall be attached)".

Certificate for Tenders for Works involving possibility of sub-contracting :

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. (Where applicable, evidence of valid registration by the Competent Authority shall be attached.)"

Certificate for GeM:

" I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India: I certify that this vendor/ bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this vendor/ bidder fulfills all requirements in this regard and is eligible to be considered for procurement on GeM. (Where applicable, evidence of valid registration by the Competent Authority shall be attached.)"

ANNEXURE F
PRICE BID

Schedule- 1

TABLE A

<i>Sl No</i>	<i>Statutory Benefits</i>	<i>% to be collected from employee</i>	<i>% to be collected by the Contractor</i>	<i>Total %</i>
1	PF	As per the statutory law in force		
2	ESI	As per the statutory law in force		
3	Bonus	-	8.33*	8.33*
4	ELI(Workman's Comp)	Optional		

* The amount of bonus payable is 8.33% subject to a maximum of Rs. 6,999 per annum. The eligibility limit for payment of Bonus from the Salary or Wage of Rs. 21000/- per month as per Section 2 (13) of Bonus Act, 1965

Total bid amount per month inclusive of all taxes and duties as per Scope of Work and other details as contained in the tender document (please furnish in table below based on scope of work as shown in Annexure-A):

The minimum wage indicated at Sl No. 1 is as applicable on 01 October 2023 vide order No. F. No. 1/8(1)/2023-LS-II dated 26/09/2023, Ministry of Labour & Employment, Office of the Chief Labour Commissioner (C) New Delhi. The specified minimum wages (basic + VDA) for:

Supervisor	: Rs. 992
Sr. Technician	: Rs. 915
Technician	: Rs. 832
Helper	: Rs. 751

All amounts in Table-B to be indicated in figures. In the event of any discrepancy/erasures only the lowest figure will be considered.

The Contractor shall supply the items listed in Table - Uniform & PPE Kits within a month of award of contract and a fresh set should be issued if the contract is renewed beyond one year by the 13th month if renewed for 2nd year.

TABLE B
PRICE BID

Item No.	Description	Unit	Qty	Rate	Amount in Rs.
1.	Operation, Monitoring and Maintenance of 2x1250 kVA Transformers , Outdoor RMU, associated HT,LT switchgears with panel,VCBs (indoor & outdoor), ACBs,Capcitor Bank panels, 2x 250 kVAR capacitor panels, battery charger,2x 120 kVA online ups systems, AMF panels and switchgears 2 X 500 kVA D.G associated with the substation operation in round-the-clock shift in par with ICTS shift schedule. The entire work shall be executed as per scope of work in Annexure 'A'	Days	365		
2.	Operation and Maintenance of the Sub Panel,earth pit (Approx 130 nos.) of the Academic Building, Seminar Block, Ajanta Guest House, Guest House, Housing, Sports Complex and other buildings of ICTS Campus and Hostels in General shift in par with ICTS shift schedule. The entire work shall be executed as per scope of work in Annexure 'A'	Days	313		
3.	Operation and Maintenance of the Readymade Distribution Boards and Outdoor Busbar Panel and feeder Pillars in General shift in par with ICTS shift schedule. The entire work shall be executed as per scope of work in Annexure 'A'	Days	313		
4.	Operation and Maintenance of theIndoor and Outdoor Lighting including wiring/cabling, fan, geyser, Exhaust fan and other utility in ICTS Campus and off campus Hostels in Round the clock shift in par with ICTS shift schedule. The entire work shall be executed as per scope of work in Annexure '1'	Days	365		
5.	Operation and Maintenance of the Industrial Domestic power Point of (6A,16,A,20 A,32A etc with single phase and three phase) including wiring/cabling and other utility in ICTS Campus and off campus Hostels in Round the clock shift in par with ICTS shift schedule. The entire work shall be executed as per scope of work in Annexure 'A'	Days	365		

6.	Operation and Maintenance of the Fire Fighting equipment, Fire Extinguisher cleaning and safety parameter check in ICTS Campus and off campus Hostels in general shift in par with ICTS shift schedule. The entire work shall be executed as per scope of work in Annexure 'A'	Days	313		
7.	Operation, monitoring and general maintenance (like cleaning, Terminal tightening, Battery maintenance) of the Inverter, Batteries, Portable UPS up to 40 kVA, Lift (7 Nos.) 1X 100 kVA D.G in ICTS Campus and off campus Hostels in General shift in par with ICTS shift schedule. The entire work shall be executed as per scope of work in Annexure 'A'	Days	313		
8.	Operation, and maintenance of renewable energy source like 32 kWp On-Grid solar Power Generation system and 3 KW windmill with all associated equipment in ICTS Campus in General shift in par with ICTS shift schedule. The entire work shall be executed as per scope of work in Annexure 'A'	Days	313		
	Total in Rs.				
	Add: GST @ applicable rate				
	Total including all taxes				

(SIGNATURE OF THE CONTRACTOR)

(DATE)

(COMPANY SEAL)

(Format to be filled up by the Agency)

1. **Name of Firm/Bidder:** _____

2. **Address :** _____

3. **Phone/Fax/Mobile/Email:** _____