# भारतीय प्रौद्योगिकी संस्थान गोवा INDIAN INSTITUTE OF TECHNOLOGY GOA



## **NOTICE INVITING e-TENDER**

NAME OF WORK: Annual Repair & Maintenance Operation of

**Electrical Works at IIT Goa** 

N.I.T. No. IITGOA/IWD/2024/018 dated 06.12.2024



## e-Tender Notice

Indian Institute of Technology (IIT) Goa invites sealed **Percentage Rate Tender** from eligible contractors for following work(s):

N.I.T. No	IITGOA/IWD/2024/018 dated 06.12.2024					
Name of work	Annual Repair & Maintenance Operation of Electrical Works at					
	IIT Goa					
Location of Work	IIT Goa transit campus at GEC Farmagudi.					
Estimated Cost	Rs. 38,27,805/- (Including GST)					
Tender Fees	Nil					
Earnest Money Deposit	Rs. 76,600/- only.					
Performance Guarantee	5% of tender accepted value					
Period of Contract	1 years from the date of issue of work order					
Form of Tender Two Bid System (Technical Bid & Financial Bid)						
Critical Dates:						
Publish Date	06.12.2024 at 16.00 hrs					
Document Download Start Date	06.12.2024 at 16.00 hrs					
Bid submission start date	06.12.2024 at 16.00 hrs					
Date of Pre-bid meeting	16.12.2024 at 16.00 hrs					
Document Download end date	27.12.2024 at 16.00 hrs					
Bid submission end date	27.12.2024 at 16.00 hrs					
Bid opening date	28.12.2024 at 16.00 hrs					
Website for full and updated	CPP Portal ( <u>www.eprocure.gov.in</u> ) and Institute website					
information	(https://iitgoa.ac.in/tenders/)					

Head-IWD IIT Goa

Copy along with NIT forwarded to:

- 1. Director, IIT Goa
- 2. Registrar, IIT Goa
- 3. Institute Works Department, IIT Goa
- 4. Website of IIT Goa and CPPP.



NIT No.	IITGOA/IWD/2024/018 dated 06.12.2024
Name of Work	Annual Repair & Maintenance Operation of Electrical Works at IIT Goa

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This N.I.T. contains pages <u>01 to 48</u> for Part- A & B and Page <u>49 to 60</u> for Part-C.

This N.I.T. is approved by the Competent Authority for Rs. 38,27,805/- (Rupees Thirty Eight Lakhs Twenty Seven Thousand Eight Hundred and Five Only)

Head-IWD IIT Goa



# PART- A INFORMATION & INSTRUCTIONS FOR BIDDERS FOR e-TENDERING FORMING PART OF TENDER DOCUMENT AND TO BE POSTED ON WEBSITE

Indian Institute of Technology (IIT Goa) invites sealed **Percentage** Rate bids from eligible contractors for following work(s):

S. No	ÑIT No.	Name of Work	Estimated Cost put to tender	Tender fee	Earnest Money	Period of Contract	Last date & time of submission of bid	Time and date of opening of technical bid
1	IITGOA/IWD/2024/018 dated 06.12.2024	Annual Repair & Maintenance Operation of Electrical Works at IIT Goa	Rs 38,27,805/-	Nii	Rs 76,600/-	One Years	27.12.2024 at 16.00 Hrs	28.12.2024 at 16.00 Hrs

- 1. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
- Agreement shall be drawn with the successful bidders on prescribed Form No. CPWD-7/8 (as applicable) of GCC 2023 duly amended upto last date of submission of bid, which is available as a Govt. of India Publication and also available on website www.cpwd.gov.in or other Standard Form as provided by the Institute. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
- 3. The intending bidders are required to update their profile in CPP e-procure portal and to upload their bids well in advance of last date of submission of tender. Any issue related to updating profile / uploading tender can be resolved through the CPP Portal help line available at their website. The e- tendering bidders are also advised not to wait to raise any issues till the last date of submission of bid in their own interest.
- 4. Information and Instructions for bidders posted on website shall form part of bid document.
- 5. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from Institute website <a href="https://iitgoa.ac.in/tenders/">https://iitgoa.ac.in/tenders/</a> and CPP portal (www.eprocure.gov.in)
- 6. Applicant has to deposit Online payment of Rs. 76,600/- (Rupees Seventy Six Thousand Six Hundred only) towards refundable EMD.



Details for online payment for EMD:

Beneficiary name: IIT Goa Main Account

Account No: 520101252594859 IFSC Code: UBIN0913286 Bank Name: Union Bank of India

Branch: Farmagudi

Address: GEC Campus, Farmagudi, Ponda, Goa - 403401.

The bank transaction reference slip (UTR Number required) shall be uploaded with technical bid.

- 7. Those contractors not registered on the website mentioned above, are required to get registered beforehand. The necessary training materials including the videos with step-to-step process are available on CPP portal. The institute shall not be responsible for whatsoever case in this regard.
- 8. The intending bidder must have valid class digital signature to submit the bid.
- On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
- 10. Contractor can upload documents in the form of JPG format and PDF format
- 11. Contractor must ensure to quote rate of each item. The column meant for quoting rate in figures appears in yellow colour and the moment rate is entered, it turns sky blue.

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

  However, if a tenderer quotes nil rates against each item in item rate tender or does not quote any
  - However, if a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.
- 12. The bidder should not have been blacklisted or penalized or not have any involvement in illegal activities or financial misappropriation/frauds etc. by any Central Government / State Government offices/PSUs/Autonomous bodies. An undertaking on Non-Judicial Stamp paper of Rs. 100/- duly notarized, in this effect is required to be scanned and uploaded. (Form-E)
- 13. Tenders with any condition including that of conditional rebates in the tender document shall be rejected forthwith.
- 14. The Technical Bid shall be opened first on due date and time as mentioned above. The time and date of opening of financial bid of contractors qualifying the technical bid shall be communicated to them at a later date.
- 15. GST or any other tax applicable in respect of inputs procured by the contractor for this contract shall be payable by the Contractor and the Institute will not entertain any claim whatsoever in respect of the same. However, component of GST at time of supply of service (as provided in CGST Act 2017) provided by the contract shall be varied if different from that applicable on the last date of receipt of tender including extension if any.
- 16. The bidder shall quote their rates considering all prevalent taxes/ cess like GST, workers cess or any other tax on material /work as applicable on the last date of bid submission and nothing extra shall be paid to the contractor on this account. All such taxes as applicable shall be paid by the contractor himself. The institute shall deduct from the RA bills, the TDS as applicable.
- 17. In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a



power of attorney authorizing him to do so. Such power of attorney should be produced with the tender and it must be disclosed that the firm is duly registered under the Indian partnership act, 1952.

- 18. The bidders(s) shall have to make his/her own arrangement for housing facilities for staff at his own cost. No labour huts will be allowed to be constructed in Institute campus. Any decision in this regard shall rest with the IIT Goa.
- 19. Power/ electricity supply required for construction, testing & commissioning shall have to be provided to the contractor on payment basis as per the institute norms or else it has to be arranged by the contractor. Water required for testing of equipment is also in the scope of agency.
- 20. The bidders(s) shall take precaution to ensure quality of workmanship as well as the progress of the work. He shall regulate the labour accordingly. The bidders(s) shall make arrangements for disposal of dismantled materials and other trash properly in an environmental friendly manner.
- 21. The Institute reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.
- 22. All needful statutory provisions to be adopted at site to tackle epidemic/ pandemic or similar situation of COVID-19 shall be done by the contractor and expenditure on the same shall be borne by the contractor unless statutory orders direct for the reimbursement of the same.
- 23. The bidders should also read the General Conditions of Contract for Construction works 2023 with latest amendments upto date of submission of bid (available on CPWD website), which is available as Govt. of India Publications, which will be a part of the agreement including the special conditions and particular specifications etc.

24. List of documents to be scanned and uploaded within the period of bid submission:

(i)	Earnest Money Deposit - Scanned copy of bank transaction reference slip (UTR Number
	required)
(ii)	Letter of Transmittal
(iii)	GST Registration Certificate
(iv)	PAN card and Bank Account details duly attested by the firm.
(v)	Copy of Experience/work completion certificates as per conditions laid down in the eligibility
	criteria
(vi)	Certificate of Financial Turnover from CA or Copy of audited balance sheets of last three
	financial years.
(vii)	EPF, ESCI registration certificate (If applicable)
(viii)	Valid electrical contractor license OR associate contractor having valid electrical license of
	appropriate class.
(ix)	An undertaking on Non-Judicial Stamp paper of Rs. 100/- duly notarized valid as on last date
	of submission of bid, for non-backlisting or penalized or not involved in illegal activities or
	financial misappropriation/frauds etc. by any Central Government / State Government
	Offices/PSUs/Autonomous bodies, is required to be scanned and uploaded

- 25. Any clarification on the content of NIT/ Tender document can be referred to the Executive Engineer (Electrical), IIT Goa (Phone No. 0832-2490900) email: <a href="mailto:ex.eng.ee@iitgoa.ac.in">ex.eng.ee@iitgoa.ac.in</a> by making a written requested up to date & time of pre-bid meeting.
- 26. Pre-Bid meeting will be held in the IWD Office, IIT Goa on 16.12.2024 at 16.00 Hrs, to clear the doubt of intending bidders, if any.
- 27. Corrigendum / Addendum to this tender if any will be uploaded on the CPPP/ Institute website. Bidders/ prospective bidders may kindly note this.



## **LETTER OF TRANSMITTAL**

From:	M/s	
То		
	The Head- IWD	
	IIT Goa	
Subje	ct: Submission of bids for the work of .	
Sir,		
	g examined the details given in the biont in	d document for the above work, I/we hereby submitthe
	We hereby certify that all the statemed id documents accompanying statements	ent made and information supplied in Technical cum eligibility at are true and correct.
	We have furnished all information and after the supply.	details necessary for eligibility and have no further pertinent
3. I/	We submit the requisite certified to the submit the requisite certified to the submit to approach to approach to also authorized to the submit the submit to the submit to the submit	solvency certificate and authorize the Engineer-in-Charge the Bank issuing the solvency certificate to confirm the orize Engineer-in-Charge to approach ration to verify our competence and general reputation.
	We submit the following certificates in aving successfully completed the follow	support of our suitability, technical knowledge and capability for wing eligible similar works:
N	lame of work	Certificate from
corre	ct. It is also certified that I / We sh	tion given in the enclosed Technical cum eligibility bid are all be liable to be debarred, disqualified / cancellation of hed by me / us is found to be incorrect.
Enclos	sures: Seal of bidder	
Date o	of submission:	
Signat	ture(s) of Bidder(s):	



**CPWD FORM -6** 

## For e-TENDERING

Indian Institute of Technology (IIT) Goa, invites sealed **Percentage Rate Tenders** in two bid system from eligible contractors for following work(s):

Name of Work: Annual Repair & Maintenance Operation of Electrical Works at IIT Goa

- 1.1 The work is estimated Cost: Rs. 38,27,805/- only. This estimate, however, is given merely as a rough guide.
- 1.2 The Contractors who fulfill the following requirements shall be eligible to apply. Joint ventures are not accepted.
- 1.3 The firms/Contractors who fulfill the following requirements shall be eligible to apply:
- 1.3.1 Should have satisfactorily completed the similar works in any Central Government Department/ State Government Department/ PSUs/ Autonomous bodies etc. as mentioned below during the last seven years ending last day of the month previous to the one in which tenders are invited (Form-B).
  - Three similar works each costing not less than 40% of estimated cost put to tender
  - or Two similar works each costing not less than 60% of estimated cost put to tender
  - or One similar work costing not less than 80% of estimated cost put to tender.

Similar work shall mean works of "Annual Repair/Maintenance/Operation of Electrical Installation/Works"

The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to previous day of last day of submission of tenders.

Contractor shall submit completion certificate for such works for pre-qualification. Pre-qualification application received without such experience (Completion Certificate) shall be summarily rejected.

Bidder shall submit self-attested certificate of completion certificate(s), issued by the officer not below the rank of Executive Engineer or equivalent. Completion certificate must clearly indicate.

- 1. Name of work
- 2. Stipulated date of start and actual date of completion.
- 3. Gross Value of work done
- 4. That the work has been completed satisfactorily.
- 5. Full address of client, officer issuing the certificate & location where work is executed.
- 1.3.2 Should have appropriate (MV or above) valid electrical contractor's license issued by Govt. of Goa. If the bidder does not have a valid contractor license, then he/she must have the willingness from a licensed contractor for supervising the work to whom such license is issued by the Govt. of Goa for carrying out the electrical work in MV category or above. The willingness letter (as given in Form-F) along with a copy of the valid license (attested by the bidder and license holder) must be enclosed. The license must be valid during the execution period of the work.
- 1.3.3 Should have had **Average Annual Financial Turnover of 50% of estimated amount put to tender** during the last three years ending 31st March 2024 (Scanned copy of Certificate from CA with Unique Document Identification Number (UDIN) to be uploaded). Year in which no turnover is shown would also be considered for working out the average. (Annexure-I)
- 1.3.4 The bidder should not have incurred any loss (profit after tax should be positive) in more than two years during available last five consecutive balance sheets, duly certified and audited by the



Chartered Accountant. (The balance sheet in case of Pvt./ Public Ltd. company means its standalone financial statement and consolidated financial statement both). (Annexure-I)

- 1.3.5 The bidder should not have been blacklisted or penalized or not have any involvement in illegal activities or financial misappropriation/frauds etc. by any Central Government / State Government Offices/PSUs/Autonomous bodies. An undertaking on Non-Judicial Stamp paper of Rs. 100/- duly notarized valid as on last date of submission of bid, in this effect is required to be scanned and uploaded. (Form-E)
- 1.3.6 The bidder should have valid GST Registration Certificate.
- 1.4 The bidder should have sufficient number of Technical and Administrative employees for the proper execution of the contract. The bidder shall have to submit a list of these employees stating clearly how these would be involved in this work within 15 days of award of work.
- 1.5 The bidders have to submit a list of jobs in progress. Brief details of the units scope of work, names and address (postal mail) of present clients.
- 2. The period of contract will be **12 Months** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the tender documents. However the contract further may be extended for next year on same terms and conditions if the vendor's performance is found satisfactory. Scope of work and cost of such extension may be mutually decided.
- 3. The site for the work is mostly available. The work is required to be executed in occupied buildings.
- 4. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms & conditions of contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen from website <a href="https://www.iitgoa.ac.in">www.iitgoa.ac.in</a> or <a href="https://www.eprocure.gov.in">www.eprocure.gov.in</a>
- 5. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of tender as notified. While submitting the revised bid, contractor can revise the quoted rates but before last time and date of submission of tender as notified.
- 6. The bid submitted shall become invalid, if
  - (i) The bidder is found ineligible.
  - (ii) The bidder does not deposit original EMD with technical bid.
  - (iii) If a bidder quotes nil rates against each item in item rate tender or does not quote any percentage above / below on the total amount of the tender or any section/ sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest bidder.
  - (iv) If any discrepancy is noticed in the documents / details as submitted by bidder.

#### 7. **EMD**:

Applicant has to deposit Online payment of Rs. 76,600/- (Rupees Thirty Six Thousand Eight Hundred and Ten only) towards refundable EMD. Details for online payment are as under:

Beneficiary name: IIT Goa Main Account

Account No: 520101252594859 IFSC Code: UBIN0913286 Bank Name: Union Bank of India

Branch: Farmagudi

Address: GEC Campus, Farmagudi, Ponda, Goa - 403401.



## The bank transaction reference slip (UTR Number required) shall be uploaded with technical bid.

The EMD of the successful bidder will be returned without any interest after submission of Performance Guarantee. The earnest money of unsuccessful bidders shall be returned after financial evaluation/award of work. Please provide details of particulars for the refund in 'Form D' and upload the same along with technical bid'.

Note: The MSE Firms are not relaxed for works contracts. No other relaxation will be allowed.

#### 8. **Performance Guarantee:**

The contractor whose bid is accepted will be required to furnish performance guarantee of **5%** (**Five Percent**) of the tender accepted amount within the period specified in Schedule F. This guarantee shall be in the form of Deposit at Call receipt of any scheduled bank/Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/ Pay order of any Scheduled Bank of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee.

## 9. Security Deposit:

The contractor whose tender is accepted will also be required to furnish by way of Security Deposit for the fulfillment of his contract, an amount equal to 2.5% of the executed amount of work. The Security deposit will be collected by deductions from the running bills as well as final bill of the contractor at the rates mentioned above. The security amount will also be accepted in the shape of Government Securities or Demand Draft or Fixed Deposit Receipt or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. The said security deposit shall be returned after satisfactorily completion of defect liability/warranty period. This security deposit shall be forfeited if he/they fails to comply with any of the conditions of the contract. No interest shall be paid on the security deposit.

#### 10. Payment Clause:

Running Account bill payment will be made as per execution of work duly certified by the Engineer-in-Charge. No advance payment will be made. Income tax and all other statutory tax deduction will be made as per Govt. of India norms.

## 11. Liquidated Damages(LD):

After issue of job sheet, the contractor has to complete the work within the time specified in it. Failing which LD shall be applicable as - With a rate of 2% (two percent) per month of delay to be computed on per day basis based on quantum of damage suffered due to stated delay on the part of Contractor.

### 12. The description of the work is as follows: -

Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools



and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

- 13. The competent authority on behalf of the IIT Goa does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the tenders received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
- 14. Mere becoming the lowest bidder, prior to financial bid scrutiny will not give any right to the lowest bidder to claim that he is successful in the bidding process. The successful bidder (L1) shall be decided only after following due procedure.
- 15. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable to rejection.
- 16. The competent authority on behalf of IIT Goa reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.
- 17. No Engineer of Gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his/her retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.
- 18. The bid for the works shall remain open for acceptance for a period of **90 days** from the date of opening of bid. Further
  - a) If any bidder withdraws his bid or makes modifications in the terms & conditions of the bid which is not acceptable to the department within 7 days after last date of submission bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money absolutely irrespective of letter of acceptance for the workis issued or not.
  - b) If any bidder withdraws his bid or makes modifications in the terms & conditions of the bid which is not acceptable to the department after expiry of 7 days after last date of submission bids, then the Government without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the workis issued or not.
  - c) In case of forfeiture of earnest money as prescribed in para (a) and (b) above, bidders shall not be allowed to participate in the rebidding process of the same work.
- 19. Except writing rates and amount, the bidder should not write any conditions or make any changes, additions, alterations and modifications in the printed/downloaded form of tenders. If any changes, additions, alterations, modifications are detected in the submitted bid even at a later date when contract has been awarded; the contract will be liable to be void. The decision of IIT Goa will be final & binding to the Contractor in this regard.
- 20. The Specifications to be followed for execution of work:
  - CPWD General specifications for electrical works Part-I (Internal) & Part-II (External) 2013 and DSR E&M (2022) as modified and Correction Slips/amendments issued upto previous day to last date of bid submission or any other relevant CPWD manual/guideline
  - Relevant IS Code.
     In case of any contradictory, IS code will provide for this NIT.
- 21. Signing of Contract:

This notice-inviting bid shall form a part of the contract document. The successful bidder/contractor,



on acceptance of his tender by the Accepting Authority, shall, within 10 days from the stipulated date of start of the work, sign the contract consisting of

- a. the notice inviting tender, all the documents including drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
- b. Standard C.P.W.D. Form as mentioned in Schedule 'F' consisting of:
  - i. Various standard clauses with corrections up to the date stipulated in Schedule 'F' along with annexures thereto.
  - ii. C.P.W.D. Safety Code.
  - iii. Model Rules for the protection of health, sanitary arrangements for workers employed by CPWD or its contractors.
  - iv. CPWD Contractor's Labour Regulations. (if applicable)
  - v. List of Acts and omissions for which fines can be imposed.
- c. Integrity Pact (if applicable)
- 22. No payment for the work done will be made unless contract is signed by the contractor.
- 23. The bid document will include following two components: -
  - Part A: CPWD-6, CPWD-7 including proforma of schedule A to F for the work, Standard General Conditions of Contract for CPWD 2023 as amended/ modified up to last date of submission of bid.
  - Part B: Additional/specific conditions of contract, technical specification/schedule of quantities applicable to the work. In case of any discrepancy between part A and part B of the contract agreement, the provision of Part A shall prevail.
- 24. Any dispute unless resolved amicable shall be settled by a court of law having jurisdiction over Goa.



CPWD Form - 7

## INDIAN INSTITUTE OF TECHNOLOGY GOA IWD Office

#### Percentage Rate e-Tender & Contract for Works

Tender for the work of: Annual Repair & Maintenance Operation of Electrical Worksat IIT Goa

<ul> <li>(i) Tender to be submitted online upto 16.00 hrs on 27.12.2024 as per the NIT</li> <li>(ii) To be opened at 16.00 hrs. on 28.12.2024 as per NIT.</li> </ul>				
Issued to: - M/s				
Signature of officer issuing the documents				
Designation:				
Date of Issue:				

#### **TENDER**

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

I/We hereby tender for the execution of the work specified for the Institute within the time specified in Schedule "F", viz., schedule of quantities and in accordance with the specifications, designs, drawings and instructions in writing referred to in General Rules and Directions and in Clause of the Conditions of contract and with such materials as are provided for, by, and in respects in accordance with, such condition so far as applicable.

I/We agree to keep the tender open for **ninety (90) days** from the due date of opening and not to make any modification in its terms and conditions.

A **sum of Rs. 76,600/-** is hereby paid online in favour of Indian Institute of Technology (IIT) Goa as earnest money. If I/We fail to furnish the prescribed performance guarantee of tender form within prescribed period. I/We agree that the Institute, without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/we fail to commence work as specified, I/we agree that Institute shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, up to maximum of the percentage mentioned in schedule 'F' and those in excess of that limit at the rates to be determined in accordance with the provision contained in clause 12.2 and 12.3 of the tender form.

Further I/We agree that in case of forfeiture of earnest money or both earnest money and performance guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then

I/We shall be debarred for tendering in IIT Goa in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-In-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.



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

	Seal of bidder:
	Date of submission:
	Signature(s) of Bidder(s)
ACCEPTANCE	
The above tender (as modified by you as provided in the letters mentioned by me for and on behalf of the Director, IIT Goa for a sum of Rs	
)	
The letters referred to below shall form part of this contract agreement: -	
(a)	
(b)	
(c)	
	For & on behalf of the IIT Goa
	Signature
	Designation
	Date:



## **SCHEDULES**

## SCHEDULE 'A'

Schedule of quantities (Enclosed)

## As per Financial Bid/BOQ

## SCHEDULE 'B'

Schedule of materials to be issued to the bidder/contractor.

SI. No.	Description of Item	Qty.	Rates in figures & words at which the material will be charged to the contractor	Place of Issue
1	2	3	4	5
1.	NIL	NIL	NIL	NIL

## SCHEDULE 'C'

Tools and plants to be hired to the bidder/contractor

SI. No.	Description	Hire charges per day	Place of issue
1	2	3	4
NIL	NIL	NIL	NIL

## SCHEDULE 'D'

Extra schedule for specific requirements/ documents for the work, if any.

Nil

## SCHEDULE 'E'

	T	,	T
1.	Reference to General Conditions of contract	:	General Conditions of Contract (GCC) 2023 for CPWD Maintenance works, as modified & corrected up to last date of submission of tender.
2.	Name of work	:	Annual Repair & Maintenance Operation of Electrical Works at IIT Goa.
(i)	Estimated Cost put to tender:	:	Rs. 38,27,805/- (incl GST)
(ii)	Earnest Money		Rs. 76,600/- (to be returned after receiving performance guarantee without interest)
(iii)	Performance guarantee	:	5% of tender accepted value. (to be returned after completion of contract without interest as per GCC)
(iv)	Security Deposit	:	2.5% of executed amount of work. (to be returned without interest after completion of defect liability period as per GCC)

## SCHEDULE 'F'

General Rules & Directions		
Officer Inviting Tender	:	Head-IWD, IIT Goa



Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3		:	See under Clause 12
Definit	Definitions:		
2(v)	Engineer-in-Charge	:	Executive Engineer (Electrical), IIT Goa
2(vii)	Accepting Authority	:	Director, IIT Goa
2(x)	Percentage on cost of materials and labor to cover all overhead & profits	:	For SH: Deployment of Labour = 3.85% on central govt minimum basic wage For CPWD DSR E&M items = 15% For NDSR Items = Market Rates
2(xi)	Standard Schedule of Rates	:	DSR 2022 (E&M), with correction slips up to last date of submission of bid & For NDSR Items – Market Rates
2(xii)	Department	:	Institute Works Department, IIT Goa
9(ii)	Standard CPWD contract Form, CPWD Form 7/8 as modified & corrected upto	:	CPWD GCC 2023 –for Maintenance Works CPWD Form 7 as modified and Correction Slips/amendments issued upto previous day to last date of bid submission.
Clause	e 1 (Performance Guarantee)		
(i)	Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance	:	10 days
(ii)	Maximum allowable extension with late fee @ 0.1% per day of performance guarantee amount beyond the period provided in (i) above	:	7 days
(iii)	The lowest bidder shall have to execute MOU as per Appendix-B with OEM or their authorized service provider in case of DG sets for execution of AMC. The lowest bidder shall have to submit the MOUs within 14 days from date of issue of Letter of Intent/Acceptance. Only on receipt and verification of the MOUs, IIT Goa shall issue letter of commencement.	:	14 days
	e 2 (Compensation for Delay) ity for fixing compensation under 2	:	Head - IWD, IIT Goa
Clause	2A		



Whether Clause 2A shall be applicable		:	Yes		
Clause 5 Number of days from the date of issue of letter of acceptance for reckoning date of start Mile stone(s) as per table given below		:	10 days		
Milesto	ne(s) as per table given below: As per so	юре	ppe of work		
Time a	llowed for execution of work	:	12 Months		
Author	rity to decide				
(i)	Extension of time	:	Director, IIT Goa		
(ii)	Rescheduling of milestones		Head-IWD, IIT Goa		
(iii)	Shifting of date of start in case of delay in handing over of site	:	Head - IWD, IIT Goa		
Clause Nature physic		:	Applicable (Physical)		
Clause	<del>•</del> 6	:	Applicable (Computerized Measurement Book)		
Clause 7 Gross work to be done together with net payment /adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment is		:	Running Account Bill Payment or as decided by the Competent Authority		
Clause 7A  No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge		:	Applicable		
Clause 10A List of testing equipment to be provided by the contractor at site lab		:	As per site requirement and directions of Engineer-in-Charge.		
Clause 10 B		:	Not Applicable		
Clause 10 C Component of labour expressed as percent of value of work		:	Not Applicable		
Clause 10 CA Payment due to variation in prices of materials after receipt of tender		:	Not Applicable		
Claus	e 10 CC				
			•		



Payment due to Increase / Decrease in Prices/ Wages (excluding materials covered under clause 10 CA) after Receipt of Tender for Works	:	Not Applicable		
Clause 10 CC				
Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column Schedule of component of other Materials, Labour, POL etc. for price escalation	:	Not Applicable		
Clause 11 Specifications to be followed for execution of work		i) CPWD General Specification for Electrical work Part-1 (Internal)-2023 with correction slip/amendments up to last date of submission of tender.  ii) CPWD General Specification for Electrical Work Part- II (External) – 2023, with correction slip/amendments up to last date of submission of tender.  iii) CPWD Handbook on safety, iv) NBC 2016 Vol 1 & Vol 2  V) Relevant IS Code as applicable		
Clause 12 Type of Work	:	Maintenance work		
Clause 12.2. & 12.3: Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work 12.5: Deviation Limit beyond which Clause 12.2 & 12.3 shall apply for Foundation Work	:	100% NA		
Clause 16 Competent Authority for deciding reduced rates	:	Director, IIT Goa		
Clause 18 List of mandatory machinery, tools & plants to be deployed by the contractor at site	:	As applicable to be arranged by the contractor		
Clause 19 Authority to decide penalty for each default	:	Director, IIT Goa		
Clause 25 - This clause will be governed as per CPWD GCC  (a) Constitution of Dispute Redressal Committee (DRC).	:	Authority to appoint DRC Director, IIT Goa		
(b) Conciliation/Mediation/Arbitration of disputes	:	Appointment of Conciliator/Mediator/Arbitration as per CPWD Manual/ provisions of law.		
Clause 32 Requirement of Technical Representative(s) and recovery Rate				



Sr. No	Minimum Qualification of Technical Representative	-	Designation (Principal/ Technical/ Representative)	Minimum Experience	be made from in the event of	recovery shall the contractor of not fulfilling of clause 32
					Figures	Words
1	Graduate Engineeror Diploma Engineer	Electrical	Site Engineer	2 years or 5 years respectively	Rs. 15000/- Per month	(Rupees Five Thousand per person per month

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers. Diploma holder with minimum 10 years relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

Clause 38: Not Applicable



# PART- B ADDITIONAL AND COMMERICAL CONDITIONS OF CONTRACT

The bidder is advised to visit the site of the work i.e. "IIT Goa at GEC Campus" to have an idea of the execution of the work; failure to do so shall not absolve their responsibility to do the work as specified in agreement.

The work shall be executed as per CPWD General Specifications for CPWD's general specification for Electrical Works Part-I Internal & Part-II External 2023, IE rules, Indian Standards Code, as per Rules of NBC & all the amendment issued upto date and as per directions of Engineer-in-Charge. These additional specifications are to be read in conjunction with above and in case of variations; specifications given in this Additional conditions shall apply. However, nothing extra shall be paid on account of these additional specifications & conditions as the same are to be read along with schedule of quantities for the work.

#### 1. Mobilization Advance:

No mobilization advance shall be paid for the work, unless otherwise stipulated in tender papers for any individual works/ composite work.

## 2. Completeness of Tender:

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

## 3. Storage and Custody of Materials:

The contractor has to make his own arrangement for the storage of the material at site & necessary watch and ward of the electrical installation during the execution of work till the same is handed over to the department. No extra payment will be made on this account. The storage space shall however be arranged by the department at site, if available. The contractor shall however be responsible for proper storage and safe custody of the same till their installation and handing over to the department.

#### 4. Machinery for Erection

All tools and tackles required for unloading/handling of equipment's and materials at site, their assembling, erection, testing and commissioning shall be the responsibility of the contractor. No T&P shall be issued by the department and nothing extra shall be paid on account of this.

#### 5. Care of the building and other structures / installations

Care shall be taken by the contractor while handling and installing the various equipment's and components of the work to avoid damage to the building and its surrounding roads, pavements, horticulture work, boundary wall, sewer and water lines etc. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove at his cost all unwanted and waste materials arising out of the installation from the site. In case of failure to do so, damages to existing infrastructure/equipment done due to carelessness/poor quality work shall be compensated by contractor to IIT Goa.

### 6. Structural Alterations to Buildings:

- (i) No structural member in the building shall be damaged/altered, without prior approval from the competent authority through the Engineer-In-charge.
- (ii) Structural provisions like openings, cutouts, if any, provided by the department for the work, shall be used. Where these required modifications or fresh provisions are required to be made, such contingent works shall be carried out by the contract at his cost.
- (iii) All such openings in floors provided by the department shall be closed by the contractor after installing the cables/conduits/rising mains/GI&MS Pipe etc. as the case may be, by any suitable



means as approved by the Engineer-In-charge without any extra payment.

## 7. Inspection and Testing (as applicable):

All major equipment's shall be offered for initial inspection by the Engineer-In-Charge or officer authorized by him at manufacturer's works in India. The department may or may not inspect the material at its discretion. The contractor will intimate the date of testing of equipment's at the manufacturer's works before dispatch. Contractor shall make all arrangements for inspection of material at works. Nothing Extra Shall be paid on this account. The department reserves the right to get the equipment inspected by third party inspection also. Such inspection shall be of following categories:

- (i) Inspection of materials/ equipment's to be witnessed at the manufacturer's premises/ at its authorized works in India, in accordance with relevant BIS/ Agreement Inspection Procedure.
- (ii) To receive material at site with manufacturer's Routine & Type Test certificates.
- (iii) To inspect material at the authorized dealer's, go-down to ensure delivery of genuine material at site.
- (iv) To receive material after physical inspection at site.
- (v) Relevant Indian Standards including amendments or revisions thereof up to the date of tender acceptance shall be applicable in the respective contracts for respective items, firm to ensure its compliance.

#### 8. Workmanship:

Good workmanship is an essential requirement to be complied with. The entire work of manufacture/fabrication, assembly and installation shall conform to sound engineering practice. Proper supervision/skilled workmen: The contractor shall be a licensed electrical contractor of appropriate class suitable for execution of the electrical work. He shall engage suitably/skilled/licensed workmen of various categories for execution of work supervised by supervisors/Engineer of appropriate qualification and experience to ensure proper execution of work. They will carry out instruction of Engineer-In-Charge and other senior officers of the Department during the progress of work.

<u>Use of quality materials:</u> Only quality materials of reputed make as specified in the tender will be used in work.

## 9. Installation & Test Reports:

All testes prescribed in this General Specification, to be done before, during and after installation, shall be carried out, and the test results shall be submitted to the Engineer-In Charge in prescribed Performa, forming part of the Completion Certificate.

#### 10. Commissioning on completion (as applicable):

After the work is completed, it shall be ensured that the installation is tested and commissioned.

#### 11. Drawings/Documents to be furnished on completion of installation (as applicable):

Three sets of the following laminated drawings shall be submitted by the contractor while handing over the installation to the Department.

- 1. Manufacturer's technical catalogues of all equipment's and accessories.
- 2. Operation and maintenance manual of all major equipment's, detailing all adjustments, operation and maintenance procedure.

#### 12. Safety Code & Labour Regulations

In respect of all labour employed directly or indirectly on the work for the performance of the contractor's part of work, the contractor at his own expense, will arrange for the safety provisions as per the statutory provisions, B.I.S. Recommendations, Factory Act, workmen's compensation act, CPWD code and instructions issued from time to time. Failure to provide such safety requirements would make the bidder liable for penalty for Rs. 200/- for each violation. In addition, the Engineer-In-Charge, shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost from the contractor.



• The contractor shall provide necessary barriers, warning signals and other safety measures wherever necessary so as to avoid accident. He shall also indemnify IIT Goa against claims for compensation arising out of negligence in this respect. Contractor shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause. The department shall not be responsible for any accident occurred or damage incurred or claims arising there from during the execution of work. The contractor shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the contractor due to the above provisions thereof.

#### 13. Period of Contract

The period of contract is **12 Months** indicated in the tender documents is for the entire work of planning, designing, etc., arrangement of materials & equipment's, delivery at site including transportation, installation, testing, commissioning and handing over of the entire system to the satisfaction of the Engineer-In-Charge.

#### 14. Extent of Work

The work shall comprise of entire labour including supervision and all materials necessary to make a complete installation and such tests and adjustments and commissioning, as may be required by the department. The term complete installation shall not only mean major items of the plant and equipment's covered by specifications but all incidental sundry components necessary for complete execution and satisfactory performance of installation with all layout charts whether or not those have been specifically mentioned in bill of quantity in the tender document. However, major equipment not covered in the scope of the work and required subsequently as an additional feature, not covered in the contract specifications, shall be paid extra. The decision of the Engineer-In-Charge in the matter shall be final and binding upon the contractor.

#### 15. Compliance with Regulations and Indian Standards

- All works shall be carried out in accordance with relevant regulation, both statutory and those specified by the Indian Standards related to the works covered by this specification. In particular, the equipment and installation will comply with the following:
  - a. Factories Act.
  - b. Indian Electricity Rules.
  - c. B.I.S. & other standards as applicable.
  - d. Workmen's Compensation Act.
  - e. Statutory norms prescribed by local bodies like CEA, Power Supply Co., etc.
- Nothing in this specification shall be construed to relieve the successful bidder of his responsibility
  for the design, manufacture and installation of the equipment with all accessories in accordance with
  currently applicable statutory regulations and safety codes.
- Successful bidder shall arrange for compliance with statutory provisions of safety regulations and departmental requirements of safety codes in respect of labour employed on the work by the bidder. Failure to provide such safety requirement would make the bidder liable for penalty as decided by the Institute authority. In addition, the department will be at liberty to make arrangement for the safety requirements at the cost of bidder and recover the cost thereof from him.

#### 16. Insurance and Storage

All consignments are to be duly insured upto the destination from warehouse to warehouse at the cost of the contractor. The insurance covers shall be valid till the equipment is handed over duly installed, tested and commissioned.

## 17. Verification of Correctness of Equipment's at Destination (as applicable)

The contractor shall have to produce all the relevant records to certify that the genuine equipment's from the manufacturers has been supplied and erected.



## 18. Painting (as applicable)

The major equipment's shall be factory final finish painted. The agency shall be required to do only touching to the damages caused to the painting during transportation, handling & installation at site, if there is no major damage to the painting. However, hangers, supports etc. shall be painted with required shade including painting with two coats of anticorrosive primer paint at site as per the instructions of the engineer-in-charge.

#### 19. Indemnity

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

#### 20. Order of Preference:

Should there be any difference or discrepancy between the description of items as given in the Schedule of Quantities, technical specifications for individual items of work (including additional and commercial conditions) and IS Codes etc., the following order of preference shall be followed:

- 1. Schedule of quantities/ BOQ of this NIT
- 2. Relevant IS Code with latest Amendments and other relevant IS code
- 3. Additional and Commercial Conditions
- 4. Technical specifications specified in the tender
- 5. CPWD General Specifications
- 6. General Conditions of Contract for CPWD Works
- 7. Any other International code in case IS code is not available.

## 21. Safety Measures

- All equipment's shall incorporate suitable safety provisions to ensure safety of the operating personnel as per manufacturer's standard practice.
- Work is to be carried out in such a manner that existing working of the building is not hindered. No payment on A/c of idle labour for this reason shall be made to contractor.
- The issue of construction safety & standards has gained utmost importance in recent times. Contractors must follow highest safety standards and "ZERO" tolerance towards any violation of safety norms at the construction site. All workers of contractor and associate agencies, invariably and at all the times, must follow all safety norms, adopt best safe work practices as per requirement of job and use all required safety gadgets in their working throughout the project duration.

#### Note:

- 1) The special conditions detailed above are in addition to general/ other/ additional conditions as specified elsewhere in tender document.
- 2) Nothing extra shall be paid on the account of these special conditions. The Engineer-in Charge can stop the work and seek removal of any workers from site in case of non-adoption of safety measures.



# SPECIAL CONDITIONS AND QUALIFICATIONS FOR ASSOCIATION OF SPECIALIZED AGENCY (OEM OR AUTHORIZED SERVICE OF OEM OR SUB-CONTRACTOR) AMC of DG Sets

## 1) Eligibility Criteria:

The Specialized agency should have valid OEM (Kirlosker/Cummins) authorized service provider certificate. In case the main contractor himself/herself is OEM authorized service provider then MoU is not required however, main contractor has to submit following documents valid OEM authorization service provider certificate.

- 2) The lowest bidder /main contractor shall have to execute MOU as per Appendix-B with OEM or their authorized service center in case of DG sets for execution of AMC. The MOUs in the specified format (Appendix-B) shall be signed by both the parties i.e. main contractor as 1st party and associated specialized agency as 2nd party. The main contractor shall have to submit the MOUs within the time specified in Schedule-F from date of issue of Letter of Intent/Acceptance. Only on receipt and verification of the MOUs, IIT Goa shall issue letter of commencement.
- 3) In case of non-submission or partial submission of MOUs, the work shall not be commenced and the agency shall be suspended for 2 years and shall not be eligible to bid for IIT Goa tender from date of issue of suspension order. The EMD/Performance Guarantee shall also be forfeited. The Institute also reserves the right to execute the said work directly through OEM authorized dealer at the risk and cost of main contractor.
- 4) In addition to the eligibility criteria, the proposed associated specialized agency shall submit the copy of registration certificate in GST, valid electrical contractor license, if applicable, duly attested by the Main Contractor.
- 5) In case, the associated specialized agency is not performing satisfactorily or failure of agency to complete the work, the main contractor, on the directions of the IIT Goa in writing, shall remove the associated specialized agency deployed on the work and shall associate the new specialized agency, who fulfills the conditions mentioned in NIT to execute the leftover work without any loss of time.
- 6) No change in associated specialized agency will be allowed without prior approval of the IIT Goa.
- 7) All such associates shall also enter into tripartite Agreement/Contract along with the main contractor and the IIT Goa and shall meet the entire guarantee for the services already provided for which payment has been released by the IIT Goa in part.
- 8) If any equipment supplied for the work, during the currency of the earlier associated specialized agency and paid partly by the IIT Goa, becomes redundant /not in a position to be installed and commissioned and put to beneficial use due to change in agency for execution of E&M works, the main contractor shall be liable for completion of such work at no cost to the Institute.
- 9) Tender accepting authority reserves the right to the change of Sub-Agency in case it is required during the currency of the contract.
- 10) The main contractor shall be responsible and liable for proper and complete execution of the E&M works/services and ensure coordination and completion of works.
- 11) The Institute shall not entertain any kind of dispute regarding the same, between Main Contractor & associated specialized agency.
- 12) The associated specialized agency shall sign a tripartite Agreement/MOU along with the main tenderer and the Institute, for technical compliance, guarantee, execution of work etc. as per scope of work as mentioned in NIT and conditions of the contract.



## SCOPE OF WORK & SPECIAL CONDITIONS OF CONTRACT

- All the work shall be carried out as per CPWD General Specifications for Electrical works Part-I (Internal)

   2023 & Part-II (External) 2023 and should also comply with relevant provisions of the Indian Electricity Rules /Acts as applicable, amended up to date.
- 2. For the items, which are not covered under CPWD specifications, the special conditions of Indian Electricity Rules/ CEA norms/B.I.S. specifications shall apply. In this regard, the decision of Engineer-in-Charge shall be final. Wherever any reference is made of any Indian Standard, it shall be taken as reference to the latest edition with all amendments / revision issued thereto up to the date.
- 3. The work is to be carried out to the entire satisfaction of the Engineer-in-charge and his authorized representative.
- 4. The Institute will not be liable for any costs related to consumables, tools, labour, service engineer visits, or other site materials.
- 5. The contractor is required to get the drawings & make of material approved before execution of work.

#### 6. CONSUMABLES & TOOLS & TACKLES:

#### a) CONSUMABLES:

All the consumables items cotton waste, dungry cloth, emery paper, CRC & CTC etc and stationeries such as log books, work diaries to workmen, various registers, as per IIT Goa format and as per the instructions of Engineer-in-charge will be provided within the 15 days of commencement of work and maintained by the contractor at the site.

#### b) TOOLS & TACKLES:

The contractor shall provide and maintain all necessary tools and equipment for the successful operation and maintenance required at site, at their own cost within 15 days of commencement of work. Nothing-extra payment for the same will be made by the Institute. An indicative list of tools/tackles is mentioned hereunder:

S. No.	List of Items	Qty.
1	Screw Star Screw Driver	5 Nos
2	Plus Minus Screw Driver	5 Nos
3	Combination/ Long nose/ Flat Nose /Circlip/Side Cutting	5 Nos each
	Plier (both long and short)	
4	Double End C Spanner Set	2 Set
5	Ring Spanner Set	2 Set
6	Scissor	As required
7	Allen key set (both inches and mm types)	4 Nos
8	Crimping tool kit of all sizes	1 Set
9	Ratchet set	1 Set
10	Electrical Screw Driver Set	1 Set
11	Electrical Tester and Wire Stripper	As required for each staff
12	Cable Cutter	2 Nos
13	Measurement Tape	As required at site
14	Insulation Tape/Cello/ Packing Tape	As required at site



15	Torch/emergency light	5 Nos
16	Pliers & test lamps	As required for each staff
17	Megger – 1000/5000 volts	1 Nos
18	Power meter /Multimeter Cum Clamp tester	3 Nos
19	High voltage discharge rod	3 Nos
20	High voltage safety gloves	2 pairs
21	Hand gloves, safety shoes and safety belts	As required for each staff
22	First aid kit	As required for each staff
23	Blower	2 Nos
24	Ladder upto 20 feet safe working height	2 Nos
25	Cleaning Brush / Colin Spray	As required at site
26	Portable Vacuum Cleaner	1 Nos
27	Temperature gun	1 Nos
28	Jet Pump	1 Nos
29	Pressure & Compound Gauge Manifold	1 Nos each
30	Adjustment Range Set	1 Set
31	Indoor Cover as required	2 Nos each

Note: However, any other tools despite of listed felt necessary for execution of the work like lugs, cable tie, cable clips etc would also have to be arranged by the contractor. The agency has to keep all T&P (Tools & Plants) (as listed above) required for the successful operation of the entire equipment & attending complaints to be available all the time at site, failing which the material will be arranged by the IIT Goa and the expenditure will be recovered from the agency with 15% overhead/ departmental charges from RA/Final Bills.

## 7. For Part – A (Deployment of Labour)

a) List of minimum required work force to be deputed by the contract agency on purely temporary and contract basis working under the Pay roll of the contractor as per the contract Labour (Regulation and Abolition) rules and Government stipulation from time to time.

S. No.	Designation	Category	Qty.	Criteria (Qualification & Experience)
1	Electrical Supervisor	Highly Skilled	1	a) Diploma in Electrical with minimum 2
				years relevant experience OR
				ITI in Electrician trade with minimum 5
				years relevant experience.
				b) Should have valid Supervisor License
				issued by Govt of Goa.
2	Wiremen	Skilled	3	a) ITI in Electrician trade with minimum 3
				years relevant experience.
				b) Should have valid Wiremen License
				issued by Govt of Goa.
3	Mechanic	Skilled	1	ITI in Refrigeration and Air Conditioning
				trade with minimum 3 years relevant
				experience.

Note: Electrical Supervisor must be available for maintenance work and breakdown calls across all shifts as needed. They will oversee the electrical HT/LT system, manage day-to-day complaints, and supervise all related activities, recording findings in a logbook. The Electrical Supervisor's residence should preferably be within 10Kms from the IIT Goa Campus for the purpose of immediate availability in emergencies.



## b) Penalty Clause:

- (i) Each worker will have to attend his duty regularly. In case of absence of any worker, deduction will be made from the contractor's bill at the rate of daily wages of the worker.
- (ii) If a worker is absent for more than five days without intimation or approval of Engineer-in-Charge, Contractor should immediately make alternative arrangement by bringing additional manpower, failing which a penalty of Rs. 1000/- per day shall be imposed.
- (iii) If any staff of contractor is found missing/ absent from his duty place at any time during the period of his shift/duty hours (without intimation to Engineer IIT Goa), a penalty of Rs. 1000/shall be imposed.
- (iv) The EIC has full rights to instruct the agency of expel/ replace the person with the regular habit of taking unauthorized leaves frequently or continuously absent without proper justification, which may impact the morale of co-workers and smooth operation of the Institute.
- c) The Contractor has to ensure dedicated one (1) mobile number and cell phone with sufficient balance of recharge value is to be available at all times with Supervisor (or any staff as per directions of Engineer-in-Charge) for emergency electrical purpose at site for proper communication, the said expense are deemed to be covered under the price quoted by the Contractor.

#### d) UNIFORM:

- i) The contractor/ agency has to provide every year during the currency of the contract, 2 sets of uniform (1 pant and 1 shirt), 1 pair of shoes & 3 pair of socks to his staff of approved color by EIC during the contract period, (within one month from the date of award) failing which, the Institute will recover an amount of Rs 200/- per person per week till the compliance of the same from the contractor's running/final bill.
- ii) In the event of noncompliance of wearing uniform & shoes by workers on daily basis a recovery of Rs. 50/-per day per person shall be made from running bills. The uniform shirt shall be labelled with company's name on suitable location.
- iii) The Contractor shall also ensure that each staff deployed at site shall have valid Company Photo Identity Card.
- iv) The Contractor team/staff should be well dressed during the duty time, which should be proper, clean and tidy. They should also carry necessary tools & equipments with them during duty time.
- v) In case, the Institute has dress code, the contractor is bound to follow that and all such expenses are deemed to be covered under the CPOH and/or price quoted by the Contractor.
- e) At present, the manpower/staff shall be deployed in shifts (7.00 AM to 10.00PM) on weekdays and one general shift (9.00 AM to 6.00 PM) on weekends as per duty roster. The shifts mentioned above are only indicative. The shift timing may be changed later during currency of the contract as per the requirement of the Institute however, the Contractor shall follow hours of duty of staff as per Labour Laws. The Contractor shall ensure that staff deployed strictly follow the duty roster provided by the Engineer-in-Charge or his representative. The staff shall be prepared to respond to breakdown calls outside of their schedule shifts and may be called in at any time.
- f) No accommodation shall be arranged by the IIT Goa for the staff/ workers of the contractor. It is the responsibility of contractor to make his own arrangements for the facilities.

## g) DOCUMENTS TO BE SUBMITTED FOR MANPOWER ENGAGEMENT:

 The Contractor has to submit the credentials/ experience certificate of the staff such as, qualification documents and experience certificate of the staff, the CV and passport size colored



photograph, for prior approval.

- All the documents should be self-attested by each worker, signed, and stamped by contractor / agency.
- The decision of Engineer-in-charge, to accept or reject any candidate on the basis of lack of experience, qualification, lack of skills required for job, will be final and binding on the Contractor.
- The Contractor shall submit the name and Bio-data along with the appointment letter of each staff being deputed for the work and all the new staff / replaced staff engaged during currency of contract.
- The Contractor shall have to submit copy of latest police verification before engaging them on work, for all staff at any stage of contract.

#### h) COMPLIANCE OF THE PROVISIONS OF STATUTORY & REGULATORY CLAUSES:

- i) The contractor has to discharge all the obligations as provided under various statutory enactment including the EPF/ESI/ Contract Labour (Regulation and abolition)/ Minimum Wages / Payment of Wages / Payment of Bonus / Payment of Gratuity (to be paid separately on actual basis) / Workmen's compensation / Works Contract and other relevant Acts, Rules and Regulations in force and as amended from time to time in the State, as applicable. The engagement and employment of workers and payment of wages to them as per existing provisions of various labour laws and regulations is the sole responsibility of the contractor and any breach of such laws or regulations shall be deemed to be violation of this contract. IIT Goa may ask the contractor to produce documents to verify that these provisions/laws are complied by the contractor.
- ii) The contractor has to follow the local security/safety rules & regulations and such instructions on restricted hours of work as may be imposed on him by the department / local authorities, while working in security restricted zones and no claim whatsoever on account of this, will be entertained.
- iii) The Contractor shall be fully responsible for any omission and commission of his staff as well as misdemeanor/ offensive and / or rude behavior towards any person within the campus and shall remove the person forthwith from the campus and shall not deploy him/ her in the campus in future and shall pay compensation to the aggrieved person if demanded. The decision of the Engineer-in-charge in this respect shall be final and binding of the Contractor. If the Contractor fails to comply with the above requirements, the Engineer-in-charge shall have full authority to take appropriate action as deemed fit.
- iv) For performing the assigned work, the Contractor shall deploy medically and physically fit persons (preferably below the age of 50). The Contractor shall ensure that the persons are punctual and disciplined and remain vigilant in performance of their duty. Persons so engaged by the Contractor shall be from amongst properly trained, of high integrity and good conduct, and shall be conversant in the local language as well as Hindi. In no circumstances, persons below 18 years of age should be employed.
- v) The Contractor shall deploy his persons in such a way that they get weekly rest. The working hours/leave, for which the work is taken from them, do not violate relevant provisions of Govt. of India norms. The Contractor shall arrange to provide reliever equally qualified in case of absence/leave/off etc. The Contractor shall in all dealings with the persons in his employment have due regards to all recognized festivals, days of rest and religious or other customs. In the event of the Contractor committing a default or breach of any of the provisions of the Labour Laws including the provisions of Contract Labour (Regulation and Abolition) Act, 1970 as amended from time to time or in furnishing any information, or submitting or filling any statement under the provisions of the said regulations and rules which is materially incorrect, he shall without prejudice to any other liability pay to the IIT Goa, a sum as may be claimed by Director, IIT Goa.
- vi) The Contractor shall at his own cost take necessary life & accidental insurance cover of appropriate amount in respect of all the manpower deployed rendered to IIT Goa and shall



comply with the statutory provisions of Contract Labour (Regulation & Abolition) Act, 1970; Employees State Insurance Act; Workman's Compensation Act, 1923; Payment of Wages Act, 1936; The Employees Provident Fund (and Miscellaneous Provisions) Act, 1952; Payment of Bonus Act, 1965; The Minimum Wages Act, 1948; Employer's Liability Act, 1938; and/or any other rules/ regulations and/ or statues that may be applicable to them. The Contractor shall indemnify the Institute against all claims which may be made upon the Institute whether under the aforesaid statutes or any other statute in force during the currency of this contract.

#### i) LABOUR LICENSE, BONUS, EPF & ESIC: -

- The contractor shall register himself with Labour Licensing Authority and obtain Labour License Number in this regard if applicable
- ii) The contractor shall register himself with PF & ESIC (wherever applicable) for workmen engaged for the work & challans/ deposit receipts of PF & ESI contribution shall be submitted in IIT Goa IWD office for verification/ reimbursement, at the time of submission of bill.
- iii) Bonus: Contractor shall follow the "Payment of Bonus Act 1965" with latest amendments (Payment of Bonus (Amendment) Act 2015). Bonus amount as per latest Govt. Rules or 8.33% of annual salary whichever is higher will be paid to the deployed manpower by the contractor. In case of non-payment of bonus necessary recovery/ withheld against bonus from their RA bill/ final bill shall be made as decided by EIC and appropriate action will be initiated by IIT Goa against the contractor. The decision of EIC in this regard will be final and binding on the agency.
- iv) Contractor not having PF Code Number (Uncovered Establishment): The contractors who are not covered under EPF Act, but, for IIT Goa "obligation as principal employer, are required to ensure compliance for recovery and deposit of PF dues in respect of contract workers engaged for IIT Goa work. Hence, such contractors are required to obtain PF code against the work order/contract with IIT Goa for necessary compliance.
- V) The PF dues (including EDLI and administrative charges) in respect of workers engaged by the contractor for IIT Goa works to be deposited by the contractor every month by a challan and the documentary evidence in support of such payments along with employee wise details of the PF contribution (both Employee's share and the employer's contribution) needs to be submitted to the Engineer in charge for the work/ contract.
- vi) If ESI or any other Government Scheme is not applicable, the agency shall provide Rs. 2.00 lakhs Mediclaim policy to each person engaged at the site. The quoted rate shall be inclusive of payment for taking Mediclaim policy of eligible staff. Any expenditure towards the premium of Mediclaim policy shall not be reimbursed.
- vii) The Contractor has to deposit PF & ESI as applicable, failing which recovery of due amount against PF and ESI respectively from their R.A. bills/ Final Bill shall be made.

## j) PAYMENT OF LABOUR WAGES:

- i) As regard to this contract, Central Govt Minimum Wages for the State of Goa is applicable. The Order No. 1/7(1)/2024-LS-II dated 01.10.2024 issued by Ministry of Labour & Employment, Office of the Chief Labour Commissioner(C) New Delhi has been taken into account.
- ii) The casual worker/manpower deployed is to be paid the minimum wages notified by the Central Government or the State Government/Union Territory Administration, whichever is higher, as per the Minimum Wages Act, 1948.
- iii) However, any revision after due date of submission of tender document, the difference amount will be reimbursed as per actual. If on account of any legislation, notification, labour award, the consolidated minimum monthly wages (i.e. Basic rates + DA) of unskilled, semi-skilled, skilled and high skilled labour are increased at any time or times after the date of submission of the



tender, the Contractor has to pay minimum monthly wages with applicable increased consolidated minimum monthly wages due to such increase. IIT Goa shall reimburse the difference amount of consolidated minimum monthly wages to the Contractor on production of document proof with respect to the wages.

- iv) For the purpose of admitting the claim for reimbursement of statutory increase in wages paid by him, the contractor has to produce the required documentary evidence to the satisfaction of Engineer-In-Charge.
- v) The payment to the workers engaged by the contractor is to be paid through NEFT/ RTGS/ Cheque on or before 7th of every month irrespective of Saturday, Sunday and bank holidays or any delay in settlement of bills by the Institute for whatsoever reason. If any violation with respect to payment of wages for any two months in a contract period, necessary action for cancellation of contract, debarring of the agency for participating in future contracts in IIT Goa shall be initiated. The agency will not be allowed to participate in any of the tendering process in IIT Goa till finalization of the decision. However, any violation with respect to payment of wages shall be dealt according to the merit of incident and same shall be decided by the EIC.
- vi) The contractor has to maintain the attendance, wage & OT register for his employees. The same has to be produced for verification of the principal employer and labour inspector as and when required. The Contractor or his authorized representative is required to be present on the day of inspection by labour department.
- vii) Statement of Minimum Wage paid to their employee shall be produced at the time of submission of bills.
- viii) The Contractor shall be solely responsible for payment of wages/salaries and allowances to their personnel as per the rules or act applicable under government order. All central, state, local laws & by laws applicable will be observed by the Contractor and the IIT Goa will be kept indemnified of such payable by the Contractor.
- ix) The Institute may increase or decrease the labour/manpower requirement at any stage and the Contractor shall be bound to follow that. In case of Increase of labour, the Contractor shall be paid in accordance with category of labour taking into account prevailing basic wages, ESI, EPF, ESI etc factors considered in other category of labour hired in this contract and percentage quoted by the Contractor.

#### k) Accident or injury to workmen:

The IIT Goa shall not be responsible for any injury or loss of any workers of the Contractor that may take place while on work. Any compensation or expenditure towards treatment for such injury or loss of life shall be the sole responsibility of the Contractor. The Contractor is solely responsible for any damage or injury or accident that may occur to any of his personnel working under this contract. He/She will not claim any compensation from the IIT Goa.

#### /) For Substation & Electrical Installation – (Breakdown and Emergency works):

- a) The substation and all other installations are critical and will be functioning round o'clock 365 days in a year on all holidays and Sundays. The contractor shall have to take care of exigencies that may be encountered promptly.
- b) The operation and maintenance of substation and electrical installation at IIT Goa shall be uninterrupted service if any breakdown is attributed on part of contractor, suitable recovery shall be made as per decision of Engineer-In-charge.
- c) In case of any minor breakdown/fault under this contract, the agency shall attend the issue on site immediately within maximum 6 Hours of the call/email/message through any other medium. In case of failure, due to any unavoidable reasons/circumstances, the contractor has to attend the issue with



in next 6 hrs with consent of the Engineer-in-Charge. Failing to which, **penalty of Rs. 1500/- per day** shall be imposed against the agency & recovered from the bill. (for minor breakdown under the scope of this contract & not requiring expenditure approval from Institute)

- d) Contractor shall ensure that emergency spare parts are available in the premises of IIT Goa for attending the minor breakdowns.
- e) In case of any major breakdown/fault, the agency has to submit the detailed inspection report along with cost estimate for repair works and such breakdown shall be executed after approval of the Engineer-in-Charge.
- f) The cost of repair/replacement of any type of spare parts/component that are not covered under this contract, the same shall be paid to the contractor only on chargeable basis. Such works are to be carried out only after approval of Engineer-in-Charge for which the Contractor will have to submit the Inspection report with estimated cost for repair work.
- g) The scope of work also includes co-ordination with the GED (Goa Electricity Department) from where the present power at 11kV feeder is provided. If there is a deficiency in power supply from GED or there is a failure or breakdown in power etc. the Contractor should ensure that the power is restored at the earliest possible time. Such co-ordination activity will be deemed to be covered under the price quoted by the Contractor.
- h) All T&P as and when required for repairs or checking shall be arranged by the contractor and nothing extra shall be paid on this account.
- i) Utmost Care should be taken so that the system does not lead to major breakdown and in case the system goes into fault, it should be rectified within the shortest time period.

### m) Servicing of ACB & LT Panel:

- a) The Servicing work is to be carried out through authorized service provider / OEM.
- b) The work shall be carried out in presence of Electrical Contractor or his licensed supervisor.
- c) Shutdown will be provided by IIT Goa however prior details of activity chart is to be provided by the Contractor.
- d) The maintenance kit shall be provided by the contractor. Rates shall be inclusive in the quote rate of items. Nothing extra shall be paid on this account.
- e) No any charge shall be payable by the department on account of any consumables, tools, all type of labour cost, Service Engineer visits and sundry material etc required at Site.
- f) The scope of services includes following however this is indicative and service provider is required to carry out all the works required to keep the system healthy.
  - Cleaning of breaker with CRC/WD-40
  - Removal of old grease and re-greasing the same with recommended grease.
  - Check the condition of arcing contact and t h e gap between fixed and moving arcing contracts shall be checked.
  - Checking the reset mechanism, tripping of breaker through push button
  - Checking tripping of ACB through protection release.
  - Tripping of ACB manually through volt metric release.
  - Checking and adjust freeness of DN and volt metric release trip rod
  - Checking presence and proper tightening of hardware and presence of all cir clips
  - Checking condition and alignment of jaw contact with cradle terminals
  - · Checking condition of ACB wiring and replace if required
  - Checking and adjusting gap between hylam sheet and side plate
  - Checking proper closing of all poles together
  - Checking working of anti-pumping device in case of EDO ACB
  - Checking alignment of SIC and it's operation
  - Checking scrapping earth alignment
  - · Checking condition of arc chutes
  - Checking U/V release pick up and drop off



- Checking ACB tripping through shunt release
- · Checking motor operation in case of EDO ACB
- Checking closing coil operation in case of EDO ACB
- Checking continuity and proper changeover of aux contact block
- Checking IR between phase phase (ACB closed condition)
- Checking IR between phase earth (ACB closed condition)
- Checking IR between phase earth (ACB in open condition)
- Checking of release by secondary injection for O/L, S/C, E/F
- The setting of release as per the load
- · Checking the healthiness of CTs
- g) The re-commissioning reports is to be signed by the Authorized Service Provider, Electrical Contractor and Engineer IIT Goa. No payment shall be made unless the reports are submitted.
- h) The work is to be carried out to the entire satisfaction of the Engineer-in-charge and his authorized representative.
- Any spare parts/ defect parts etc observed to be repaired or replaced during service shall be informed by the contractor to the Engineer IIT Goa. The cost of such spare parts/repair work shall be paid extra.

### n) Clause related to material supply:

- a) The material shall be as per ISI Code and CPWD specifications with up to date correction slip wherever mentioned and as approved by Engineer-in charge (list of preferred make is attached in Appendix-C).
- b) In the event of any variation between CPWD specifications and that in the IS Code the former shall take precedent over the later. In the event of variation between the nomenclature of item as per schedule of quantities and specifications, the former shall prevail.
- c) All the material supplied shall be covered under the warranty/ guarantee period as per OEM terms. Warranty/Guarantee Card or Certificate (as applicable) for the same has to be submitted by the Contractor along with bill.
- d) Rejected materials shall have to be removed by the contractor at his own cost within 15 days of the instructions of doing so. Failing to which godown rent as decided by Engineer-in-Charge may be charged by the department.
- e) The supply shall be made at the Electrical Store or any other location under the jurisdiction of IIT Goa, as per directions of Engineer-In-Charge
- f) In case of any dispute regarding rejection of quality/make of materials, the decision of Engineer-in-Charge shall be final and binding upon the contractor.

## o) Defect Liability Period:

- a) The work carried out under this contract with all associated accessories are to be guaranteed for trouble free operation, maintenance and service. The warranty should cover defects due to faulty manufacture, workmanship or material for 6 Months from the date of commissioning and handed over with the requisite documentation. In case the testing of the plant/equipment is delayed for any reason, beyond 6 months the defects liability shall extend for a minimum period of 6 months from the date the test readings are accepted.
- b) Any manufacturing defect or faulty workmanship found in the equipment's or components, or any part thereof so found defective during this period shall be repaired/ replaced by the Contractor free of cost to the satisfaction of the Engineer-in-Charge and as per terms and conditions of NIT/ agreement executed with IIT Goa.
- c) In case it is felt by the Institute that the contractor is causing undue delays in addressing defects/replacing parts or not commenced or completed supplies according to the schedule of Job Sheet/Purchase Order/Work Order schedule, then, the same will be got done by the Institute at the risk and cost of the contractor, with 10 days' notice. Any additional expenses will be deducted from



the contractor's bill or performance guarantee or security deposit. The decision of Engineer-In-Charge in this regard shall be final.

## p) AMC of DG Set:

- a) The AMC of DG Set is to be strictly carried out by OEM or his Authorized Service Provider. The Contractor shall executed the MoU for execution of AMC of DG set with the OEM or his Authorized Service Provider as per "Special Conditions And Qualifications For Association Of Specialized Agency"
- b) The AMC of the DG Sets shall be carried out entirely as per the prescribed guidelines of Original Equipment Manufacturer/Authorized Service Dealer (i.e. Kirloskar/Cummins) and CPWD Specifications for D.G Sets 2013, Part VII amended time to time. Wherever any reference to any Indian Standards Specification occurs in the documents relating to this contract the same shall be inclusive of all amendments issued their to or revisions there of if any, upto the date of receipt of tenders.

c) The AMC is to be carried out for following DG Sets installed at IIT Goa:

1.	Capacity: 500 kVA	2.	Capacity: 62.5 kVA
	OEM: Kirlosker		OEM: Cummins
	Date/Year of Commissioning: June-2023		Date/Year of Commissioning: Jan-2013

- d) The scope of work includes -
  - AMC of DG sets complete with diesel engines, alternators, control panels along with associated
    accessories, which includes periodical checking, preventive maintenance as per OEM
    schedule, breakdown maintenance, attending all complaints and performing A-Check, B
    CHECK, C-check etc as recommended by the OEM
  - This also includes changing the required spare parts or PCBs or any other parts required to
    make the system functional strictly as per terms & condition, scope of work of NIT document
    and keeping all records and get the service report duly signed by IIT Goa Engineer etc. as
    required.
  - This AMC includes:
    - (i) Preventive Maintenance: The agency or his engineer shall visit the site quarterly i.e. 4 times in a year for carrying out A-Check and shall inspect the generator set thoroughly. Two service in year i/c replacement of all types of filters (oil, lube oil, air filter, coolant filter etc.), lube oil, coolant, water separator etc. as per OEM schedule & required.
    - (ii) Breakdown Maintenance: Attending all breakdown complaints as and when required. In case of any breakdown/fault, the agency shall address the issue on site immediately within maximum 6 hours of the email/message through any medium. In case of failure due to any unavoidable reasons/circumstances, the agency has to address the issue with in next 12 hrs with consent of the Engineer-in-Charge. Failing to which, penalty of Rs. 500/- per day shall be imposed against the contractor & recovered from the bill.
- e) During every visit, the service engineer shall carryout the checks as recommended by manufacturer standards or as per directions of Engineer-In-Charge and submit the detailed Inspection/Service Report of the installation. During the visit, service engineer has to check and ensure the smooth functioning of the DG Set Installations. The report shall also be submitted on every breakdown calls.
- f) During the schedule inspection, if any fault/malfunctioning of any part is noticed, the same should be brought in the knowledge of the Engineer-in-Charge, so that timely action can be taken for its rectification.
- g) The contractor has to attend emergency calls on priority (usually same day).



- Any faulty parts etc shall be required to be replaced by the contactor on actual invoice value from OEM/authorized dealer without CP&OH.
- i) The contractor/service provider has to provide any kind of spare such as PCB, AVRs, self-starter etc, free of charge if the repair/ replacement are expected to be taken in more than 2 days.
- j) Major repairs like top/ major overhauling/ PT pump & injection calibration/ replacement of major parts/ rewinding of alternator/ alternator bearing greasing, repair of heat exchanger, repairs & rewinding of various pump-motor sets & axel flow fans, or cost of component/spare parts of DG set which requirement replacement, shall be not covered in the AMC.
- k) All service/inspection reports should be duly acknowledged by the Engineer IIT Goa. Proper maintenance records shall have to be maintained by the Agency. Failures and corrective action, suggestions/recommendations to improve the performance of the Engine and all respective installations under maintenance should be recorded and implemented by the Service Engineer during his every visit at site.
- The contractor/service provider shall be responsible for the safety of his staff. The agency shall display the contact number in the Generator Room for making contact in case of any emergency.
- m) The contractor has to carry out maintenance work as per standard checklist of OEM. The indicative list of scope of work is mentioned below:
  - General check-up & preventive maintenance Check lube oil level and conditioning of lube oil, top up/refill if required, The oil filters shall be replaced whenever oil is changed, The air filters shall be cleaned periodically with compressed air, check batteries and top up the distilled water if required, Check functioning of changing alternator, Engine safety viz. high water temperature gauge, oil pressure gauge, oil temperature gauge and high speed gauge shall be checked for their functions and repaired/ replaced if required, Coolant level and conditioning of coolant shall be checked and refilled if required, the governor shall be checked and tuned for proper functioning, Check for leaks if any and shall be rectified, Check fan and alternator drive belts and tightened if required.
  - Maintenance of Engine Panel / PCC, Alternator will be covered in AMC.
  - The AMC includes replacement of minor parts like Hoses, all type of filters, all type of oils, all types of coolant, Seal, O ring, gasket rocker lever covers etc. consumables as and when required.
  - Replacement of all filters, refilling of engine oils, checking of all nuts and bolts tightness
    correction of engine alternator alignment in case of complete Genset contract and
    replacement of rubber insert/block if broken to be carried out.
  - Train the customer's representative on Operation and maintenance of DG Set.
  - To intimate customer on engine repairs and overhaul requirement based on engine performance parameters.
  - Checking and servicing of engine for smooth running, its unusual sound and color of smoke and exhaust and set it right in case of deviations.
  - Checking, repairing and attending leakage of fuel, lubricating oil and coolant. Top-up/refill of the same whenever required.
  - Cleaning and changing of Air filters as per requirement.
  - Setting of Valves tappets whenever required.
  - Checking and repairing of accessories drive, Turbo Charger and crankshaft endplay whenever required.
  - Checking of alignment and alignment of Engine and Alternator as per requirement.
  - · Checking of throttle control and its setting.
  - Checking of instrument of instrument panel including replacement as and when required.
  - Checking of rotating diodes/rectifier assembly in brushless alternator including replacement as and when required.



- Checking of all electrical connections/wiring for their proper tightness including charging alternators, battery clamps and repairing/replacement as and when required.
- Repair and Maintenance of Replays including contractors in control panel.
- Checking of Battery specific gravity every month and the acid level once in three months
  and top and with distilled water if required. (Applicable for lead acid Battery only). Output
  voltage check and condition check to be carried out in SMF type battery. Also includes desulphating & greasing of battery.
- Checking charging alternator output voltage with respect to specifications. Diagnosis of faults in engine and Alternator and its rectification.
- The agency shall arrange genuine spares of diesel engine, alternator and AMF panel as and when required.
- The engine shall be run on load or at available load and should be checked for any leakage and abnormal noise. If any such abnormality shall be diagnosed and remedial action shall be taken.
- n) No cartage or transportation shall be payable by the department on account of visits or any consumables and tools etc. at site.
- o) All the required consumable materials like cotton waste, Dhoti and petroleum jelly for cleaning of various installations shall be in the scope of contractor for which nothing etc. shall be paid extra.
- p) The contractor shall be fully responsible for rectifying the defect, which may happen during the use up to 12 months from the date of completion of the work. The decision of Engineer-in-Charge in this regard shall be final & binding. In case the contractor fails to carry out the said repairs, rectifications, replacement within the specified time, the department shall get the repairs / rectifications / replacement as considered necessary at the cost of the contractor by recovering the cost from the performance guarantee/security deposit. In case additional expenditure is incurred by the department on this account, the same shall be borne by the contractor.
- q) All the workers and Engineers of the Agency visiting at the Institute Campus for repair and maintenance of DG Sets shall be in proper uniform. All the safety measures like rubber gloves, safety shoes, helmet etc. shall be taken care by the firm while working on DG Sets.
- r) The contractor shall take all precaution for safety of the workmen. If any accident/mishap occurs, the department shall not be responsible for the same. Consequently any compensation payable shall be at the contractor cost.
- s) If the work is carried out in more than one shifts or during night to meet the time period of completion or in accordance with availability of working area, nothing extra shall be paid on this account. The contractor has to work in accordance with programme, time schedule as directed by Engineer-in-Charge.
- t) The work mentioned in the "Schedule of Quantities" and tender scope of work & terms & conditions have to be carried out as and when required. The quantities agreed in this agreement are approximate and indicative and payment will made for the actual work done. Institute does not guarantee any minimum quantity under any category/subhead. Payment will made on actual job undertaken i.e. on running bills only. The contractor shall execute any deviation/extra item under this contract, as per clauses of contract governed by CPWD GCC Maintenance 2023 (with latest amendment).
- The contractor shall indemnify and hold IIT Goa harmless from and against all claims, damages, losses and expenses arising out of, or resulting from the works or services provided under this contract.



- The contractor is not allowed to construct any huts for its workers inside the campus. No cooking or lodging shall be allowed in premises of the IIT Goa.
- w) The contractor shall arrange all T&P as and when required for repairs or checking and nothing extra shall be paid on this account.

#### q) DOCUMENTS / RECORDS TO BE MAINTAINED BY THE CONTRACTOR:

The contractor shall be responsible to maintain all required documents/ records for monitoring and shall obtain necessary endorsements / approvals from Engineer-In-Charge his representative from time to time. Following are the record, which shall be maintained.

- (a) Repair/CMC/AMC Log book of each system.
- (b) Monitor Daily Safety check registers for each system.
- (c) Complaint Logbook.
- (d) Other documents/records as per the instructions of Engineer-In-Charge or his representative.

#### r) RATES:

The prices quoted shall be inclusive of all taxes including of GST, Mediclaim, PF, ESI, bonus, tools & tackles, freight charges for material supply and safety kits for workers. GST shall be paid for taxable supply of Goods/Services against a valid Tax Invoice.

#### s) TERMS OF PAYMENT:

The Running payments for the work done shall be released monthly by IIT Goa only after salary payments to all workers & submitting the proof of disbursement and deducting the applicable taxes. The decision of EIC in this regard shall be final and binding.

The following documents as applicable shall be produced and self-attested photo copy shall be submitted by the contractor during each running bills: -

- a) Submission of GST invoices
- b) CMB duly verified
- c) Monthly Challans of E.P.F. and E.S.I. deposits up to previous month.
- d) Wages register signed by workers of each month.
- e) Attendance register.
- f) Copy of E-Transfer of Wages to staffs.
- g) Any other documentary proof as required by IIT Goa.

**Release of Final Bill Payment** - The agency shall submit final bill along with all the documents related with PF, ESIC & Bonus, GST liabilities & other statutory compliances etc. to IIT Goa. The agency shall also formally hand over the list of equipments in good working condition, without any damage as handed over to them by IIT Goa; thereafter the final bill shall be released.

### t) Misconduct:

- (i) The contractor shall be responsible for any involvement of staff appointed by him in theft & pilferage and such proven cases of thefts / pilferage by their employees are to be determined by any court of I aw
- (ii) IIT Goa will give necessary directions to security agency to ensure vigil on the working staff.
- (iii) The contractor shall be held responsible for any action / misdeeds, in terms of theft / pilferage or any other misdeed or any other undesirable activities by any of their staff engaged in IIT Goa campus. In case of any such case, if manpower is found guilty the contractor has to take immediate action to dispense with the services of such individual involved. This will be without prejudice to any other liability on the part of the contractor, arising out of court directions /claims etc., on account of such misdeeds. Any loss suffered by IIT Goa on account of misconduct by the workers of the firm shall be recovered from contractor's bill.



#### FORM - A

# **FINANCIAL INFORMATION**

I.	Financial Analysis - Details to be furnished duly supported by figures in balance sheet/ profit & loss
	account for the last five financial years duly certified by the Chartered Accountant, as submitted by the
	applicant to the Income Tax Department (Copies to be uploaded).

Financial years			
Gross Annual Turn Over			
Profit/Loss			

II. Financial arrangements for carrying out the proposed work.

Signature of Chartered Accountant
Name of Chartered Accountant
Membership No. of ICAI
Date and Seal
Signature of Bidder(s)



#### FORM - B

#### DETAILS OF ELIGIBLE SIMILAR NATURE OF WORKS COMPLETED DURING THE LAST SEVEN YEARS ENDING PREVIOUS DAY OF LAST DAY OF SUBMISSION OF TENDERS

S.	Name	Owner or	Cost	Date of	Stipulated	Actual	Litigation	Name	Wheth
					-		Liligation		
No.	of	sponsoring	of	comme	date of	date of	/	and	er the
	work/	organizatio	work	n	completio	completio	arbitratio	address/	work
	project	n	in	cement	n	n	n cases	telephon	was
	and		crore	as per			pending/	е	done
	locatio		s of	contrac			in	number	on
	n		rupee	t			progress	of officer	back to
			S				with	to whom	back
							details*	referenc	basis
								e may	Yes/
								be	No
								mad	
								е	
1	2	3	4	5	6	7	8	9	10
		l							

<sup>\*</sup> Indicate gross amount claimed and amount awarded by the Arbitration Tribunal.

Signature of Bidder(s)



#### FORM - C

#### **ORGANIZATION STRCUTURE**

- 1. Name & address of the bidder
- 2. Telephone no./Telex no./Fax no.
- 3. Legal status of the bidder (Scan & upload copies of original document defining the legal status)
  - (a) An Individual
  - (b) A proprietary firm
  - (c) A firm in partnership
  - (d) A limited Company or Corporation
- 4. Particulars of registration with various Government Bodies (Scan & upload attested photocopy)

S. No.	Organization/Place of registration	Registration No
1		
2		
3		

- 5. Names and titles of Directors & Officers with designation to be concerned with this work
- 6. Designation of individuals authorized to act for the organization
- 7. Has the bidder, or any constituent partner in case of partnership firm, limited company / Joint Venture, ever been convicted by the court of Law? If so, give details
- 8. In which field of Civil Engineering construction the bidder has specialization and interest?
- 9. Any other information considered necessary but not included above

Seal & Signature of Bidders



#### FORM - D

# PARTICULARS FOR REFUND OF EMD TO SUCCESSFUL/UNSUCCESSFUL BIDDER

1	Name	e of Bidder
2	Perm	nanent Account Number (PAN)
3	Partio	culars of Bank Account
	a)	Account No.
	b)	Name of Account Holder
	c)	Name of Bank
	d)	IFSC/NEFT/RTGS Code
	e)	Type of Account
	f)	Bank Branch Address
	g)	City Name
	h)	Telephone No./Mobile No.
4	Emai	I id of the bidder
5	Telep	phone No./Mobile No. of bidder

Note: Please attach original cancelled cheque along with RTGS/NEFT mandate form.

Seal & Signature of Bidders



#### FORM - E

(To be submitted on Non-Judicial Stamp Paper of Rs. 100/-)

## **UNDERTAKING**

I/we hereby certify that the	cial misappropriation/frauds etc. by any
I/we undertake and confirm that eligible work(s) has/ have not been on back-to-back basis. Further that, if such violation comes to the liable for appropriate panel action as decided by Institute i/c forever.	notice of Institute then. I/we shall be
Also, if such a violation comes to the notice of Institute before date of shall be free to forfeit the entire amount of Earnest money deposited	
I also certify that the information given in the bid is true and correct in date it is found that any detail/s provided are false and incorrect, at participation may be summarily terminated at any stage, the firm will be any action as per rules.	ny contract given to the concern firm o
Date:	Name :
Place:	Business Address :
Signature of Bidder:	
Seal of the Bidder :	
Notary seal and sign:	



#### FORM - F

(Willingness letter to be printed on the letter-head of the Licensed Contractor to whom the license is issued by the Govt. of Goa)

# **WILLINGNESS FOR SUPERVISION**

No.	, proprietor/owner of the firm M/s from Govt. of Goa. Do hereby submit my	willingness that the Electrical work named
Ponda shall b	as per the NIT No, dtd, dtd, de carried out under my supervision in case the vg as a bidder for the said work as stated above (	vork is awarded to M/s who
	ertake that the work shall be carried out as per the es/local rules/notices of Goa Electricity Dept, Go	
of M/s of work. It is	dertake that I will not claim any payment from IIT I undertake that my license is valid/sh clearly understood that the work of supervisior and I will not have any claim/payment whats	nall remain valid during the period of execution done by me is on behalf of the bidder M/s
of this work.		
Signature wi	ith Date:	
Official Seal:	:	
	ntractor's license ne bidder and the er.	



Appendix - 'A'

#### **ARTICLE OF AGREEMENT**

(To be executed on non-judicial stamp paper of Rs.500/-)

Agreement No:	Dated: _	

#### CONTRACT FOR THE WORK OF <name of work>

ARTICLE OF AGREEMENT made at Indian Institute of Technology Goa, this (Date of Agreement), (Two thousand twenty three), BETWEEN Indian Institute of Technology Goa, an Institute of National Importance under The Institute of Technology Act, 1961 (here in after referred to as the Institute or IIT Goa) which expression shall include its Successors and assigns and all the persons for the time being in management of the Institute of the one part and (M/s Name of the Agency with Address) trading in the name and style of xxxxxxxxx (hereinafter referred to as the contractor(s)) which expression shall include his/their respective heirs, executors, administrator and assign/its successors and assigns other part.

WHEREAS IIT Goa is desirous of getting the work of ("Name of the work") at IIT Goa, GEC Campus, Farmagudi, Ponda, Goa - 403401 done and has caused drawings, schedule of quantities and specifications describing the work to be prepared.

AND whereas the said drawing numbered one to xxxxxxxxxxxxxxxx inclusive of specifications and the priced schedule of quantities have been signed by or on behalf of the parties hereto.

AND whereas the contractor has deposited cash in bank through (<u>Payment Form & Details</u>) with IIT Goa as a security for the due performance & EMD respectively of this agreement as provided in the said condition.

NOW IT IS HEREBY AGREED AND DECLARED BY AND BETWEEN THE PARTIES HERETO AS FOLLOW:

- 1. In consideration of the payments to be made to his as hereinafter provided, the contractor's shall upon and subject to the conditions herein contained and the said conditions, execute and complete the work shown upon the said drawings and such further detailed drawings as may be furnished to him and described in the said Specifications and the said price schedule of quantities within (<u>Time Period of Work</u>) from the date of order to commence work.
- 2. IIT Goa shall pay to the contractor such sums as shall become payable hereunder at the time and in the manner specified in the terms & conditions.
- 3. Time is the essence of this agreement and the contractor shall pay or allow IIT Goa the sum (as per NIT document) as liquidated damages for the period during which the said works shall remain incomplete beyond the time allowed in clause (1) above or beyond the time duly extended in writing as per due to the contractor.
- 4. The term Engineer in the said conditions shall mean the Engineer, IIT Goa or in the event of this agreement such other persons as shall be nominated for that purpose by IIT Goa will be the Engineer-In-



Charge for the work. Directions given or expressed in writing by the Engineer-In-Charge from time to time shall be binding.

- 5. The plans, agreement and documents above mentioned shall form the basis of this agreement and the decision of the said engineer or the other engineer for the time being as mentioned in the said conditions, in reference to all matters of dispute as to material and workmanship shall be final and binding on both the parties.
- 6. IIT Goa, through the Engineer reserves to himself the right of altering the drawings and of adding or omitting any items or work or of having portions of the same carried out departmentally or otherwise and such alterations or variations shall not vitiate this agreement.
- 7. This Agreement comprises the work above and all subsidiary works connected therewith, even though such works may not be shown on the drawings, or described in the said specifications or the priced schedule of quantities.
- 8. All disputes and difference of any kind whatsoever except as excluded by Clause 6 arising out of or works (whether during the progress of the work or after their completion and whether before or after the determination, abandonment or breach of the contract) shall be amicably settled or referred to dispute resolution committee. In exceptional cases, disputes shall be referred to conciliation/mediation/arbitration as per clauses of contract. The provisions of the law applicable to conciliation/mediation/arbitration for or any statutory modification or reenactment thereof and of the rules made there-under for the time being in force shall apply to said proceedings under this clause. The sole conciliator/mediator/arbitrator shall be decided by the Director, IIT Goa which shall be accepted by the party.
- 9. All the terms & Conditions & specifications stated in the offer of the contractor and work order issued by IIT Goa shall be an integral part of the agreement.

In witness whereof the parties hereto have set their respective hands the day and the year herein above written.

Signed by the said Contractor: In the presence of
(1)
(2)
Signed by for and done behalf of IIT Goa:
The presence of
(1)
(2)



#### Appendix - 'B'

#### [On Non-Judicial stamp paper Rs. 100/- duly notary] For DG sets Annual Maintenance Contract

#### MEMORANDUM OF UNDERSTANDING [M.O.U] BETWEEN

M/S [Name of the firm with full address]
 Enlistment Status (as per the tender document) Contractor.
 Valid Upto:
 [Henceforth called the main contractor]

And

M/S [Name of the firm with full address]
 OEM/Service Center Authorization
 Valid Up to:
 [Henceforth, called Associated OEM/OEM authorized Service center]

For the execution of Maintenance work [Full nomenclature of item related to OEM under Sub Head of Schedule of Work] "AMC of DG sets installed at IIT Goa for the contract period <mention date>.

We state that M.O.U between us will be treated as an agreement and has legality as per Indian Contract Act [amended up to date] and the department [IIT Goa] can enforce all the terms and conditions of the agreement for execution of the above work. Both of us have read the terms & conditions, scope of work involved in AMC [Name of E&M service involved] and fully agree to provide the service as per NIT. Both of us shall be responsible for the execution of work as per the agreement to the extent this MOU allows. Both the parties shall be paid consequent to the execution as per agreement to the extent this MOU permits. In case of any dispute, either of us will go for dispute resolution mechanism stated under the clauses of contract of this NIT. The decision of Director IIT Goa in this regard shall be final and binding on both of us.

#### We have agreed as under:

- 1. The OEM/OEM authorized service center will execute all AMC works in the wholesome manner as per terms and conditions of the agreement. Payment of the associated agency shall be governed as per CPWD-6 & clause 7 of GCC-2023 and as amended up to date.
- 2. The OEM/OEM authorized service center shall be liable for disciplinary action if he failed to discharge the action[s] and other legal action as per agreement besides forfeiture of the security deposit.
- 3. All the machinery and equipment, tools and tackles required for execution of the AMC works, as per agreement, shall be the responsibility of the OEM/OEM authorized service center.
- 4. The site staff required for the AMC work shall be arranged by the OEM/OEM authorized service center as per terms and conditions of the agreement.
- 5. Site order book maintained for the said work shall be signed by the main contractor as well as by the authorized Engineer of the Associated Contractor or by Associated Contractor himself.
- 6. We have read the NIT document and agree to comply with its terms and conditions.



All the correspondence regarding execution of the AMC shall be done by the IWD, IIT Goa with the Associated Contractor with a copy to the main contractor. In case of non-compliance of the provisions of agreement, the main contractor, as well as the associated contractor shall be responsible. The action under clauses 2 and 3 of CPWD GCC Maintenance -2023 shall be initiated and taken against the main contractor. The decision of the Director IIT Goa shall be final and binding.

Signature of Main Contractor with Stamp	Signature of Associated OEM/OEM Authorized Service Center with Stamp
Date:	Date:
Place:	Place:
Note: - I [Name of OEM/OEM authorized service cen issued to our agency which is valid up to [Validation does not be sign the MOU on behalf of OEM/OEM authorized se	ate]. Also I am herewith attaching my authority letter
Countersigned with Stamp	
Engineer-in-Charge	Notice Inviting Authority
Date:	Date:



# Appendix - 'C'

#### **LIST OF PREFERRED MAKES**

S. No.	Material	Make
1	MCCBs	SIEMENS, L&T, SCHNEIDER, LEGRAND, ABB, HAGER.
2	MCB, ELCB, RCCB, DB, and RCBO, DB board shall be of same make of MCB, ELCB, RCCB, DB, RCBO.	SIEMENS (BETA GUARD), L&T (AU), SCHNEDIER (ACTT 9), LEGRAND (DX 3), ABB (ELEGANCE), HAGER.
3	LT Cables, 1.1 KV Grade.	Havells/Finolex/KEI/Grandley/RR Kabel/Gloster.
4	FRLS Cooper wires and cables, 1.1KV grade.	Havells/Finolex/KEI/Grandley/RR Kabel/Gloster.
5	Switch, socket, Dimmer (Regulator), call bell and accessories etc.	LEGRAND(MYRIUS), SCHNEIDER(ZENCELO), MK (ELEMENTS), HAGER (INSYSTA), CRABTREE (MURANO), ABB (CHERION).
6	Lugs and Ferrules	DOWELLS, JAINSON
7	Brass Compression Gland (Heavy duty)	COMMEX, GRIPWELL, HENSEL
8	Cable Lugs & Thimbles	DOWELL, ASIAN, ACTION
9	PVC Conduits and Accessories (ISI Marked, Heavy duty)	BEC, PRECISION, POLY-PACK, AKG, POLYCAB
10	MS Conduit and Pipes	BEC, AKG, M-KAY, STEEL CRAFT, RMCON
11	MS Conduit Accessories (Heavy duty)	BEC, AKG, M-KAY, STEEL CRAFT, RMCON
12	Pipes and Accessories (ISI)	TATA, JINDAL, SAIL
13	Street /landscape LED Light Fixtures	PHILIPS, CROMPTON, WIPRO, HAVELLS, SCHREDER, OSRAM.
14	Led light Fixture	PHILLIPS, CROMPTON, WIPRO, HAVELLS, OSRAM, LT.
15	Selector Switch	RISHAB – L&T, KAYCEE, SIEMENS, C&S,ABB
16	kWh Meters (Electronic Digital type) Multifunction Meter /Ammeter/ Voltmeter)	SCHNEIDER(CONZERV), C&S, L&T, SIEMENS, NEPTUNE, ABB, SECURE
17	Timers & Contactors to be mounted in DB's	L&T, SIEMENS, SCHNEIDER, HAGER, LEGRAND
18	LED Indication Lamps/Push Button	ESBEE/Schneider/Siemens/Vaishno /L&T/BCH/GE
19	Ceiling Fan/Exhaust Fans/BLDC Fan/Wall fan	CROMPTON GREAVES, ORIENT, HAVELLS, ATOMBERG, ORIENT, BAJAJ
20	Driver/SPD	PHILIPS, WIPRO, CROMPTON, OSRAM



21	LED light / T5 Tube light/ballast and other accessories	PHILIPS, WIPRO, CROMPTON, OSRAM, SURYA
22	Polycarbonate Junction Boxes	HENSEL, CLIPSAL, MENEKKES
23	Fasteners	HILTI, FISCHER, BOSCH, WUNH
24	DWC Pipe	Tirupati, Gemini, Rex ,TRICOLITE
25	Sealed Maintenance free Batteries	EXIDE, AMARON QUANTA, PANASONIC, ROCKET
26	DLP/ PVC Trucking	Legrand, Honeywell , Cooper, MK.
27	Ceiling fan spares and accessories	Havells/Almonard/Orient/Usha/Bajaj.
28	Fan condenser	ISI Marked.
29	Street Light Contactor	Siemens (Sicop)/L&T (MNX)/Schneider (Tesys)/Legrand (CTX 3)/ ABB(Ax)/ C&S.
30	FRLS PVC insulated copper conductor stranded flexible wire i/c control cables	Havells/Finolex/KEI/Grandley/RR Kabel/Gloster.
31	C.Ts. and P.Ts	AE, GILBERT, PRECISE, KAPPA
32	HT/LT Cable Joints Straight Through/Outdoor/indoor).	3M/Denson/G-Seal.
33	Geysers Element /thermostat	ISI Marked.
34	GI pipes	JINDAL (Hissar), TATA, SAIL
35	Din Rail Connector	LEGRAND, SCHNEIDER, ABB, L& T, Siemens.

#### Note:

- 1) Material make list should be as per above table until or unless individual items model no. specified in BOQ.
- 2) Engineer-in-Charge reserves the right to add or delete any material and brands in the list of preferred material/brands.



## **SCHEDULE OF QUANTITIES**

Sr. No.	Description of Item	Unit	Qty.	Rate (in Rs.)	Amount (in Rs.)	Remarks		
	PART-A							
	SH: Deployment of Manpower Considering minimum statutory wages w.e.f. 01.10.2024, PF @ 13% (12% Employer Contribution plus 1% Admin Charges)							
1	Providing services of Supervisor for Overall Supervision and maintenance of complaint including upkeep of register book /Substation Log Book / DG Set Log Book /workers attendance register /Complaint register/ Preventive maintenance register of all E&M Services as decided by Engineer-in-Charge. The work define is not limited but extend to any requirement as per IIT Goa.							
1.1	Electrical Supervisor - 1 Nos	months	12	33062.25	396747.04			
2	Providing services of Wiremen for maintenance complaints (day to day electrical complaints) and additional works as per IIT Goa requirement comprises the following:  1. Day to day maintenance complaints of electrical installation such as light points, fan points, exhaust fan points, call bell points, light/power plug points, street light all electrical fittings & fixtures, LT & HT Panel and Starter & motor of buildings and repairing of defective parts, energisation of substation i/c fault rectification etc.;  2. Checking & cleaning of Electrical Installation including connection and interconnection, blower, vacuum cleaning  3. Any additional works for power points, wiring, light fitting, fan, DB's etc. as per requirement of IIT Goa;  4. Street light work i/c replacing of light and cable at desired height and depth; Nothing shall be paid extra for hydra/scaffolding  5. Checking of DG Set on daily basis and trail run testing i/c rectification of fault.  6. The work define is not limited but extend to any requirement as per IIT Goa even for fixing the goods/items procured from the Institutes side.  7. Attending all emergency complaints. The uniform & tools/tackle shall be provided by contractor nothing extra shall be paid on this account. As required on all working days i/c Sunday and holiday, the staff may be deployed in shifts as per duty roster or as per IIT Goa requirement (terms and conditions attached).							
2.1	Wiremen - 3 Nos	months	12	90887.42	1090649.04			
3	Providing services of Mechanic for attending all complaints related to ACs, all electrical appliances like water coolers, washing machines, water purifiers and repairing of defective parts and replacement of new spare parts and preventive maintenance (servicing), shifting & reinstallation of machines as per requirement. The work define is not limited but extend to any requirement as per IIT Goa even for fixing the							



		1		l		
	goods/items procured from the Institutes side and any other work assigned as decided by Engineer-in-Charge.					
3.1	Mechanic - 1 Nos	months	12	30295.81	363549.68	
	Total Part A (in Rs.) incl. GST				₹18,50,945.75	
	Р	ART-B		,		
	SH: Substation					
4	Dehydration and filtration of insulation transformer oil of 11 kV 315 kVA Transformers having 500 ltrs Oil Capacity with filtration machine equipped with suitable heating system. attending leakages, testing of BDV, Megger inclusive of labour & transportation charges of equipment at site as reqd, as per standard practice and directions of Engineer-In-Charge.	Job	1	₹21,452.40	₹21,452.40	
5	Supplying & Top-up of dehydrated filtered transformer oil as per IS norms with minimum 50 kV BDV upto the required level of transformer and as reqd, as per standard practice and directions of Engineer-In-Charge.	Litre	200	₹223.02	₹44,604.00	
6	Replacement of worn out silica gel with new silica gel for the breather of Transformer complete as required, as per standard practice and directions of Engineer-In-Charge.	Kg	1	₹997.10	₹997.10	
7	Servicing of LT Main distribution with incomer panel and outing panel & APFC Panel including checking bus bar & connections tightening cleaning/removing dust with blower etc. as required. The work is to be done as per standard practice and directions of Engineer-In-Charge. Note: Any spare parts/ defect parts etc observed to be repaired or replaced during service shall be informed by the contractor to the Engineer IIT Goa. The cost of such spare parts/repair work shall be paid extra.		1	₹7,065.84	₹7,065.84	
8	Maintenance & Testing of Earthing System of 11kV Substation based on IS standards including testing of earth pits, chemical/salt/charcoal filling, continuity test of earth strip/conductor from the earth pit to the earth terminal of electrical equipment, as reqd on site, as per standard practice and directions of Engineer-In-Charge	loh	16	₹849.60	₹13,593.60	
9	Servicing of 800 Amp capacity 3 phase, 415 volts non-draw out type LT ACB complete with removal / dismantling of required parts for servicing, checking, cleaning of ARC chutes, testing and rectification of defects, oiling and greasing of moving gear assembly, coil and motor resistance measurement, insulation resistance measurement, mechanism & contact clean through CRC/WD-40 etc., and contacts i/c reassembly, recommissioning in LT panel complete as reqd. including the Calibration of Relays. Note: Any spare parts/ defect parts etc observed to be repaired or replaced during service shall be informed by the contractor to the Engineer IIT Goa. The cost of such spare parts/repair work shall be paid extra.	Each	3	₹7,066.00	₹21,198.00	NDSR
10	Servicing of LT Main distribution panel including checking bus bar & connections tightening cleaning/removing dust with blower etc. as required. It consists of incomer ACB with bus coupler & AMF Panel Compartment and distribution panel having 8 Nos outing (100-630 Amp rating). The work is to be done as per standard practice and directions of Engineer-In-Charge. Note: Any spare parts/ defect parts etc observed to be	Each	1	₹5,310.00	₹5,310.00	NDSR



	repaired or replaced during service shall be informed by the contractor to the Engineer IIT Goa. The cost of such spare parts/repair work shall be paid extra.					
	SH: AMC of DG Set & Servicing of LT Panel					
11	Annual Maintenance of following DG sets complete with diesel engines, alternators, control panels along with associated accessories, which includes periodical checking, preventive maintenance as per OEM schedule, breakdown maintenance, attending all complaints and performing A-Check, B CHECK, C-check etc as recommended by the OEM including changing the required spare parts or PCBs or anything to make the system functional strictly as per terms & condition, scope of work of NIT document and keeping all records and get the service report duly signed by IIT Goa Engineer etc. as required.  1) This AMC include two service in year i/c replacement of all types of filters (oil, lube oil, air filter, coolant filter etc.), lube oil, coolant, water separator etc. as per OEM schedule & required.  2) Quarterly visit for PM of DG sets i.e. 04 times in year 3) Attend all breakdown complaints as and when required.  4) Any faulty parts etc shall be required to be replaced by the contactor on actual invoice value from OEM/authorized dealer without CP&OH. Note: The AMC shall be done strictly by OEM Authorised Dealer. (1 Job = 3 months i.e. 1 quarter)					
11.1	500 kVA Make: Kirlosker	Job	4	₹24,651.00	₹98,604.00	NDSR
11.2	62.5 kVA, Make - Cummins	Job	4	₹12,164.65	₹48,658.60	NDSR
	SH: Electrical works items as per DSR					
12	Wiring for circuit/ sub main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.					
12.1	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	metre	50	₹247.75	₹12,387.45	DSR E&M 2022
12.2	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	metre	50	₹292.41	₹14,620.38	DSR E&M 2022
	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	metre	50	₹355.14	₹17,757.11	DSR E&M 2022
12.4	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	metre	25	₹466.79	₹11,669.72	
12.5	4 X 2.5 sq. mm + 2 X 2.5 sq. mm earth wire	metre	50	₹435.95	₹21,797.65	DSR E&M 2022
12.6	4 X 4 sq. mm + 2 X 4 sq. mm earth wire	metre	50	₹570.99	₹28,549.61	DSR E&M 2022
12.7	4 X 6 sq. mm + 2 X 6 sq. mm earth wire	metre	50	₹801.73	₹40,086.41	DSR E&M 2022
12.8	4 X 10 sq. mm + 2 X 6 sq. mm earth wire	metre	25	₹1,068.62	₹26,715.41	DSR E&M 2022
13	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
13.1	5/6 A switch	each	40	₹109.52	₹4,380.80	DSR E&M 2022
13.2	15/16 A switch	each	40	₹165.87	₹6,634.99	DSR E&M 2022
13.3	3 pin 5/6 A socket outlet	each	40	₹129.72	₹5,188.90	DSR E&M 2022
13.4	6 pin 15/16 A socket outlet	each	40	₹209.47	₹8,378.80	DSR E&M 2022
14	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box	each	40	₹392.36	₹15,694.31	DSR E&M 2022



	including connections but excluding modular plate etc. as required.					
15	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	each	40	₹42.53	₹1,701.28	DSR E&M 2022
16	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc. as required.					
16.1	1 or 2 Module (75mmX75mm)	each	25	₹316.86	₹7,921.59	DSR E&M 2022
16.2	3 Module (100mmX75mm)	each	25	₹347.70	₹8,692.48	DSR E&M 2022
16.3	6 Module (200mmX75mm)	each	25	₹427.45	₹10,686.17	DSR E&M 2022
17	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.	each	25	₹226.48	₹5,662.07	DSR E&M 2022
18	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.					
18.1	Upto 450 mm sweep	each	25	₹478.49	₹11,962.13	DSR E&M 2022
19	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)					
19.1	6 way , Double door	each	2	₹2,345.64	₹4,691.28	DSR E&M 2022
19.2	8 way , Double door	each	2	₹2,735.87	₹5,471.74	DSR E&M 2022
20	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)					
20.1	4 way (4 + 12), Double door	each	2	₹4,349.96	₹8,699.92	DSR E&M 2022
20.2	6 way (4 + 18), Double door	each	2	₹5,288.85	₹10,577.71	DSR E&M 2022
21	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer ) as required . (Note: Vertical type MCB TPDB is normally used where 3 phase outlets are required.)					
21.1	4 way (4 + 12), Double door	each	1	₹7,987.51	₹7,987.51	DSR E&M 2022
21.2	8 way (4 + 24), Double door	each	1	₹10,808.44	₹10,808.44	DSR E&M 2022
21.3	12 way (4 + 36), Double door	each	1	₹13,645.33	₹13,645.33	DSR E&M 2022
22	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
22.1	Single pole	each	24	₹272.20	₹6,532.92	DSR E&M 2022



22.2	Single pole and neutral	each	20	₹636.92	₹12,738.33	DSR E&M 2022
22.3	Triple pole	each	10	₹1,070.74	₹10,707.43	DSR E&M 2022
22.4	Triple pole and neutral	each	10	₹1,305.73	₹13,057.32	DSR E&M 2022
23	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	each	50	₹13.82	₹691.15	DSR E&M 2022
24	Supplying and fixing following rating, double pole, 240 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
24.1	40 A	each	2	₹462.54	₹925.07	DSR E&M 2022
24.2	63 A	each	2	₹560.36	₹1,120.72	DSR E&M 2022
25	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32 A 240 V "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	each	2	₹1,243.00	₹2,486.00	DSR E&M 2022
26	Supplying and fixing TP sheet steel enclosure on surface/ recess along with 16/25/32 A 415 V "C" curve TP MCB complete with connections, testing and commissioning etc. as required.	each	2	₹1,692.77	₹3,385.55	DSR E&M 2022
27	Supplying and fixing 20 A, 240 V, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top along with 20 A "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	each	2	₹1,723.61	₹3,447.22	DSR E&M 2022
28	Supplying and fixing 20 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top along with 20 A "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	each	2	₹2,753.95	₹5,507.89	DSR E&M 2022
29	Supplying and fixing 30 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top along with 30 A "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.		2	₹4,366.97	₹8,733.95	DSR E&M 2022
30	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/coke and salt as required.	each	1	₹7,944.98	₹7,944.98	DSR E&M 2022
31	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/coke and salt as required.	each	1	₹14,713.95	₹14,713.95	DSR E&M 2022
32	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	metre	30	₹1,033.53	₹31,005.83	DSR E&M 2022



33	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	metre	30	₹153.12	₹4,593.46	DSR E&M 2022
	SH: Supply of DSR Material for day to day maintenance works (Rates of item are considering with Basic Rate of Material of DSR E&M 2022 + Freight + GST + CPOH etc)					
34	1.5 sq. mm ISI marked, FRLS PVC insulated, single core copper conductor cable	metre	100	₹25.35	₹2,535.39	DSR E&M 2022
35	2.5 sq. mm ISI marked, FRLS PVC insulated, single core copper conductor cable	metre	100	₹39.44	₹3,943.94	DSR E&M 2022
36	4.0 sq. mm ISI marked, FRLS PVC insulated, single core copper conductor cable	metre	50	₹59.16	₹2,957.96	DSR E&M 2022
37	6.0 sq. mm ISI marked, FRLS PVC insulated, single core copper conductor cable	metre	50	₹88.74	₹4,436.94	DSR E&M 2022
38	Modular base & cover plate for 1 module	each	20	₹59.16	₹1,183.18	DSR E&M 2022
39	Modular base & cover plate for 2 module	each	20	₹59.16	₹1,183.18	DSR E&M 2022
40	Modular base & cover plate for 3 module	each	20	₹78.88	₹1,577.58	DSR E&M 2022
41	Modular base & cover plate for 4 module	each	20	₹85.92	₹1,718.43	DSR E&M 2022
42	Modular base & cover plate for 6 module		20	₹111.28	₹2,225.51	DSR E&M 2022
43	Modular base & cover plate for 8 module		20	₹142.26	₹2,845.27	DSR E&M 2022
44	Modular base & cover plate for 12 module	each	20	₹207.06	₹4,141.14	DSR E&M 2022
45	S.P. 5/6 amps, one way modular switch, ISI marked	each	25	₹47.89	₹1,197.27	DSR E&M 2022
46	S.P. 15/16 amps, one way modular switch, ISI marked	each	25	₹104.23	₹2,605.82	DSR E&M 2022
47	3 pin 5/6 amps modular socket outlet, ISI marked	each	50	₹88.74	₹4,436.94	DSR E&M 2022
48	6 pin 15/16 amps modular socket outlet, ISI marked	each	50	₹147.90	₹7,394.89	DSR E&M 2022
49	Stepped type Modular Fan regulator (2 module)	each	50	₹309.88	₹15,494.06	DSR E&M 2022
50	6 amps. to 32 amps. ratings , SP MCB, "C" curve,10 KA breaking capacity	each	50	₹190.15	₹9,507.72	DSR E&M 2022
51	6 amps. to 32 amps. ratings , SPN MCB, "C" curve, 10 KA breaking capacity	each	20	₹554.97	₹11,099.38	DSR E&M 2022
52	6 amps. to 32 amps. ratings , TPN MCB, "C" curve, 10 KA breaking capacity	each	10	₹1,224.03	₹12,240.31	DSR E&M 2022
53	Al. Alloy/ cadmium plated iron screws, 20 mm	each	1,000	₹1.27	₹1,267.70	DSR E&M 2022
54	Iron screws, 35 mm X 6 mm	each	1,000	₹2.54	₹2,535.39	DSR E&M 2022
55	Iron screws, 40 mm X 6 mm	each	1,000	₹2.54	₹2,535.39	DSR E&M 2022
56	Iron screws, 45 mm X 6 mm	each	1,000	₹2.54	₹2,535.39	DSR E&M 2022
57	Steel fastener 6 mm X 75 mm	each	1,000	₹10.14	₹10,141.57	DSR E&M 2022
58	Steel fastener 8 mm X 75 mm	each	1,000	₹15.21	₹15,212.35	DSR E&M 2022
59	PVC fastener 40mm long	each	3,000	₹1.27	₹3,803.09	DSR E&M 2022
60	PVC clip for fixing cable	each	3,000	₹0.63	₹1,901.54	DSR E&M 2022
61	GI saddle 20mm x 3mm	each	1,000	₹5.07	₹5,070.78	DSR E&M 2022
62	Check nut 20mm	each	1,000	₹7.61	₹7,606.18	DSR E&M 2022
63	Rubber reel, nut & bolts with washers and safety pin	set	100	₹95.08	₹9,507.72	DSR E&M 2022



	SH: Supply of Non-DSR Material for day to day maintenance works					
64	Excavation in hard rock for making earth pit with depth of 3 meters and LxB=1mx1 m	cum	25	₹6,000.00	₹150,000.00	NDSR
65	Supply of following core and size flexible, PVC insulated, PVC sheathed 1.1 kV copper cable.					
35.1	3 core 1.5 sq.mm	metre	100	₹80.00	₹8,000.00	NDSR
55.2	3 core 2.5 sq.mm	metre	100	₹128.00	₹12,800.00	NDSR
5.3	3 core 4.0 sq.mm	metre	100	₹197.00	₹19,700.00	NDSR
66	16 A, three pin plug top as per IS.	Each	100	₹90.00	₹9,000.00	NDSR
67	6 A, three pin plug top as per IS.	Each	100	₹63.00	₹6,300.00	NDSR
68	1.5 mfd, 230V, 50 Hz, capacitor as per IS.	Each	20	₹30.00	₹600.00	NDSR
69	2.5 mfd, 230V, 50 Hz, capacitor as per IS.	Each	200	₹45.00	₹9,000.00	NDSR
70	4.0 mfd, 230V, 50 Hz, capacitor as per IS.	Each	20	₹50.00	₹1,000.00	NDSR
71	30-40 mfd, 230V, 50 Hz, capacitor as per IS.	Each	40	₹177.00	₹7,080.00	NDSR
72	50 mfd, 230V, 50 Hz, capacitor as per IS.	Each	30	₹248.00	₹7,440.00	NDSR
73	Rollar of Stepped type Modular Fan regulator (2 module); Make & Model: Legrand myris /Roma or suitable as per requirement	Each	100	₹50.00	₹5,000.00	NDSR
74	BLDC fan PCB card for Bajaj Energos and existing fan model	Each	10	₹1,500.00	₹15,000.00	NDSR
75	2 wire, 5-30 Amp rated static energy meter with 1.0 accuracy class as per IS, suitable for 01 phase, 230 V, 50 Hz AC supply.		1	₹2,360.00	₹2,360.00	NDSR
76	4 wire, 10-60 Amp rated static energy meter with 1.0 accuracy class as per IS, suitable for 03 phase, 415 V, 50 Hz AC supply.	Each	1	₹4,366.00	₹4,366.00	NDSR
77	LED Bulb of 9 watt rating, 240 Volts operating voltage and 50 Hz operating frequency, 400 Volt High Voltage Protection, 4000 Volts Surge Protection, A15 Bulb Shape, Bulb Base - B22D, Non dimmable, Flicker Free, Eye-Friendly, 180 Degree Beam Angle, Life Span 15000 hours, UV and IR free and colour temperature 6500 Kelvien, 850 lumen output, CRI 80%.	Each	25	₹90.00	₹2,250.00	NDSR
78	LED Bulb of 12 watt rating, 240 Volts operating voltage and 50 Hz operating frequency, 400 Volt High Voltage Protection, 4000 Volts Surge Protection, A15 Bulb Shape, Bulb Base - B22D, Non dimmable, Flicker Free, Eye-Friendly, 180 Degree Beam Angle, Life Span 15000 hours, UV and IR free and colour temperature 6500 Kelvien, 1400 lumen output, CRI 80%.	Each	25	₹141.00	₹3,525.00	NDSR
79	LED batten of 10 watt rating, 100-300 Volts operating voltage and 50 Hz operating frequency, 400 Volt High Voltage Protection, 3500 Volts Surge Protection, 2 ft length, Non dimmable, Flicker Free, Eye-Friendly, 180 Degree Beam Angle, Life Span 20000 hours, UV and IR free and colour temperature 6500 Kelvien, 2000 lumen output, CRI 70%.	Each	25	₹153.00	₹3,825.00	NDSR
80	LED batten of 20 watt rating, 100-300 Volts operating voltage and 50 Hz operating frequency, 400 Volt High Voltage Protection, 3500 Volts Surge Protection, 4 ft length, Non dimmable, Flicker Free, Eye-Friendly, 180 Degree Beam Angle, Life Span 20000 hours, UV and IR	Each	100	₹252.00	₹25,200.00	NDSR



	free and colour temperature 6500 Kelvien, 2000 lumen output, CRI 70%.					
81	LED surface mounted 15 watt light (round/square), flush mounted, colour temperature 6500 Kelvin, operating voltage range 220-240V, 50Hz, Surge protection ≤ 4.0 KV, Power factor ≥ 0.95, CRI-80, lumen output at least 90 lumen per watt.	Each	100	₹421.00	₹42,100.00	NDSR
82	2 ft x 2 ft LED panel light of 36 watt rating, 100-300 Volts operating voltage and 50 Hz operating frequency, 3500 Volts Surge Protection, Non dimmable, Flicker Free, Eye-Friendly, 180 Degree Beam Angle, Life Span 20000 hours, UV and IR free and colour temperature 5700 Kelvin, 100 lumens per watt output, CRI 70%.	Each	15	₹2,950.00	₹44,250.00	NDSR
83	LED street Light for outdoor, 45-50 watt rating, IP65 waterproof, Aluminium die casted body, average life -50000 working hours, 2 years warranty, IP65 Driver (isolated), cool white, 120 lumens per watt, operating voltage range 85 volts to 300 volts with auto cut off at 320 volts, power factor greater than 0.95, 120 degree beam angle, 6000 degree Kelvin colour temperature, CRI 70%.	Each	15	₹2,242.00	₹33,630.00	NDSR
84	LED street Light for outdoor, 100 watt rating, IP65 waterproof, Aluminium die casted body, average life -50000 working hours, 2 years warranty, IP65 Driver (isolated), cool white, 120 lumens per watt, operating voltage range 85 volts to 300 volts with auto cut off at 320 volts, power factor greater than 0.95, 120 degree beam angle, 6000 degree Kelvin colour temperature, CRI 70%.	Each	2	₹3,422.00	₹6,844.00	NDSR
85	Supply of pole door for street light poles of make Bajaj and model BJPL-01-400 as per the specifications of the pole.	Each	20	₹500.00	₹10,000.00	NDSR
86	Supplying of 4" casing and capping in white colour or as per requirement	Mtr	30	₹500.00	₹15,000.00	NDSR
87	Supplying of modular PVC box of following size as and when required.					
87.1	3 module	Each	20	₹71.00	₹1,420.00	NDSR
87.2	6 module	Each	20	₹104.00	₹2,080.00	NDSR
87.3	8 module	Each	10	₹132.00	₹1,320.00	NDSR
87.4	12 module	Each	10	₹174.00	₹1,740.00	NDSR
	SH: Maintenance of Geyser.					
88	Supply & Fixing of thermostat, brass material suitable for 50 liter capacity Geyser of make AO Smith/Racold under buyback and making the geyser functional	Each	10	₹531.00	₹5,310.00	NDSR
89	Supply & Fixing of heating coil of 50 liter capacity 3000 watt gyeser of make AO Smith/Racold under buyback and making the geyser functional	Each	10	₹767.00	₹7,670.00	NDSR
	SH: Maintenance of Water purifiers					
90	Supply of Filters kit (with sediment filter, carbon filter, UV/UF filter) suitable for "AG-HIFLOW/ AQUAFLOW DX UV/ AQUAGUARD 200/ AS AQUAFLO DX NEW/ AQUAFLOW EX" water purifier 3 LPH	Each	19	₹1,063.00	₹20,197.00	NDSR
91	Supply of Filters kit (with 20" Sediment Filter, 20" carbon filter, post carbon filter, UV/UF Block Filter) for Aditya Tech Water Purifier 30 LPH	Each	13	₹3,009.00	₹39,117.00	NDSR



92	RO Membrane Filter suitable for Aditya Tech Water Purifier 30 LPH	Each	13	₹1,888.00	₹24,544.00	NDSR
93	Booster Pump suitable for existing Aditya Tech Water Purifier 30 LPH	Each	5	₹2,124.00	₹10,620.00	NDSR
94	Solenoid Valve 24V suitable for existing Aditya Tech 30 LPH/Aqua guard purifier 3 LPH	Each	10	₹472.00	₹4,720.00	NDSR
95	SMPS 24V suitable for existing Aditya Tech Water Purifier 30 LPH	Each	10	₹944.00	₹9,440.00	NDSR
96	Electrical adapter type power supply cut-off switch 230V, 50HZ, ISI Marked	Each	15	₹2,430.00	₹36,450.00	NDSR
97	Nozzle Connector all types suitable for existing Aditya Tech 30 LPH/Aqua guard purifier 3 LPH	Each	25	₹50.00	₹1,250.00	NDSR
98	Connecting Pipe suitable for existing Aditya Tech 30 LPH/Aqua guard purifier 3 LPH	Mtr	25	₹118.00	₹2,950.00	NDSR
99	Replacement of PCB of aqua guard water purifier 3 LPH under buyback	Each	5	₹1,650.00	₹8,250.00	NDSR
	SH: Repair & Maintenance of washing machines					
100	Replacement of spin motor for automatic/semi automatic washing machine suitable for make- Voltas/Whirlpool	Each	10	₹1,450.00	₹14,500.00	NDSR
101	Supply of buffer for semi automatic washing machine suitable for make- Voltas/Whirlpool	Each	10	₹250.00	₹2,500.00	NDSR
102	Supply of Mechanism Pulley Type for semi automatic washing machine suitable for make- Voltas/Whirlpool	Each	5	₹250.00	₹1,250.00	NDSR
103	Replacement of PCB for fully automatic washing machine suitable for make- Voltas/ Panasonic	Each	5	₹4,000.00	₹20,000.00	NDSR
104	Supply of Inlet value for fully automatic washing machine suitable for make- Voltas/Panasonic	Each	10	₹350.00	₹3,500.00	NDSR
105	Supply of Pressure Switch for fully automatic washing machine suitable for make- Voltas/Panasonic	Each	10	₹550.00	₹5,500.00	NDSR
	SH: Repair & Maintenance of Fan, Motor & Pumps					
106	Rewinding of motor copper (starting and running winding) including all necessary material. The motor is to be wound taking no. of coils, turns and pitch as it was originally wound with required size super enamelled wire with 'E' class insulation material and making connections etc. as required. Replacement of material or components shall be use as per guidelines of OEM of original product. All the scrap material should be retained by the contractor.					
106.1	900/1200/1400 mm sweep size ceiling fan.	Each	200	₹590.00	₹118,000.00	NDSR
106.2	225-300 mm sweep size exhaust fan.	Each	100	₹897.00	₹89,700.00	NDSR
106.3	400-450 mm sweep size heavy duty exhaust fan/pedestal fan	Each	1	₹1,200.00	₹1,200.00	NDSR
106.4	0 HP <motor hp<="" pump<="2" td=""><td>Each</td><td>5</td><td>₹2,390.00</td><td>₹11,950.00</td><td>NDSR</td></motor>	Each	5	₹2,390.00	₹11,950.00	NDSR
106.5	2 HP <motor hp<="" pump<="5" td=""><td>Each</td><td>10</td><td>₹4,828.00</td><td>₹48,280.00</td><td>NDSR</td></motor>	Each	10	₹4,828.00	₹48,280.00	NDSR
106.6	5 HP <motor hp<="" pump<="10" td=""><td>Each</td><td>1</td><td>₹6,343.00</td><td>₹6,343.00</td><td>NDSR</td></motor>	Each	1	₹6,343.00	₹6,343.00	NDSR
107	Providing and Replacement of ball bearing / bush of following motors along with removing of existing bearings/bush and installation of new bearings/bush ensuring noiseless operation complete as required. All the scrap material should be retained by the contractor.					
107.1	900/1200/1400 mm sweep size ceiling fan.	Each	200	₹118.00	₹23,600.00	NDSR



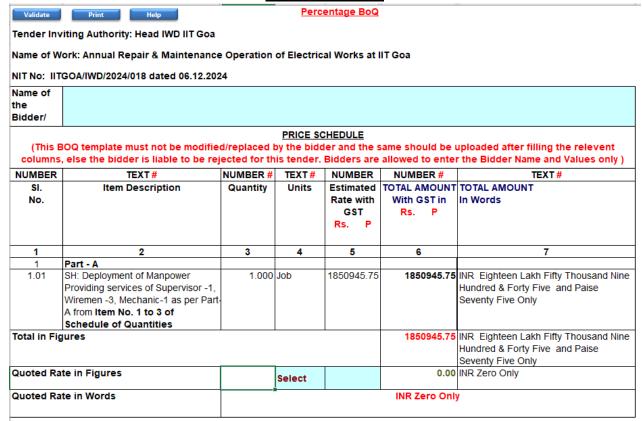
107.2	225-300 mm sweep size exhaust fan.	Each	100	₹118.00	₹11,800.00	NDSR
107.3	400-450 mm 450 mm sweep size heavy duty exhaust fan/pedestal fan	Each	1	₹649.00	₹649.00	NDSR
107.4	0 HP <motor hp<="" pump<="2" td=""><td>Each</td><td>5</td><td>₹1,575.00</td><td>₹7,875.00</td><td>NDSR</td></motor>	Each	5	₹1,575.00	₹7,875.00	NDSR
107.5	2 HP <motor hp<="" pump<="5" td=""><td>Each</td><td>10</td><td>₹3,250.00</td><td>₹32,500.00</td><td>NDSR</td></motor>	Each	10	₹3,250.00	₹32,500.00	NDSR
107.6	5 HP <motor hp<="" pump<="10" td=""><td>Each</td><td>1</td><td>₹4,500.00</td><td>₹4,500.00</td><td>NDSR</td></motor>	Each	1	₹4,500.00	₹4,500.00	NDSR
108	Uninstalling and Dismantling of Motor/Pump and carrying out overhauling of the same including cleaning out dirt / debris / oil from inside and outside of the motor / pump impeller / exhaust fan re-varnishing and spray painting of motor-pump set etc., checking all hold down bolts for tightness, inspecting shaft alignment, inspect coupling alignment etc, which can be a cause of vibration, inspect impeller for erosion, replacement of gasket / rubber seal, reinstallation, testing & recommissioning of the motor/pump set complete as required.					
	0 HP <motor hp<="" pump<="2" td=""><td>Each</td><td>7</td><td>₹1,770.00</td><td>₹12,390.00</td><td>NDSR</td></motor>	Each	7	₹1,770.00	₹12,390.00	NDSR
108.2	2 HP <motor hp<="" pump<="5" td=""><td>Each</td><td>15</td><td>₹2,596.00</td><td>₹38,940.00</td><td>NDSR</td></motor>	Each	15	₹2,596.00	₹38,940.00	NDSR
108.3	3 5 HP <motor hp<="" pump<="10" td=""><td>1</td><td>₹4,248.00</td><td>₹4,248.00</td><td>NDSR</td></motor>		1	₹4,248.00	₹4,248.00	NDSR
	SH: Servicing and cleaning of Kitchen Ventilation System					
109	Servicing & cleaning of dining hall's kitchen hood & all ducts with strictly following standards and guidelines of NFPA 96. Use safe and technological advanced methods to safely clean the system thoroughly i.e. Rotating brush, high-pressure steam nozzle, methods involves a technician descending in the ducts depending upon the size of the duct to manually clean the duct and other advanced technique. Can use appropriate chemicals & all 'cleaning agents' should be 'food grade', 'non-inflammable', 'environmentally safe' and 'metal friendly'. All consumables required for cleaning process will arranged by contractor. Scope also includes fixing of gaskets and adhesive material at joints of ducts to avoid leakages. Contractor have to submit 'After Service Report'. Size of the Hood is ~ 1Mtrx 2Mtr x 0.45Mtr each 8 Nos and Size of Duct is ~ 0.65Mtr x 0.65Mtr x 15Mtr each 4 Nos. After servicing & cleaning of the duct as per norms the unit should be proper suction level and functional properly without unusual disturbance and noise.	Job	1	₹30,000.00	₹30,000.00	NDSR
	Total Part B (in Rs.)				₹1,976,859.47	
	Total Amount Part A+B (in Rs.) incl. GST				₹3,827,805.22	



#### **Price Bid/Financial Bid**

(The Price bid/BoQ has two sheet BoQ1 & BoQ2 that is to be filled and submitted/uploaded with Financial Bid Cover Only)

#### PART - A / BoQ1



- The quoted rates shall be firm and the bidder has to quote service charges for labour component in percentage only (At par or Excess).
- 2. As per Office Memorandum No. F.6/1/2023-PPD of Ministry of Finance, Department of Expenditure dated 6th January 2023, minimum service charge for labour component has been fixed as 3.85%. The bidder are requested to quote their rates accordingly.
- Any firm quoting "Negative" charges/ consideration as service charges in labour component (Part A/BoQ1) will be treated as unresponsive and will be summarily rejected.
- 4. L1 will be decided on composite basis i.e. on basis of total of Part-A (BoQ1) + Part-B (BoQ2).



#### PART -B/ BoQ2

Validate	Print Help Percentage BoQ								
Tender Inv	riting Authority: Head IWD IIT Goa								
Name of W	Name of Work: Annual Repair & Maintenance Operation of Electrical Works at IIT Goa								
NIT No: IIT	NIT No: IITGOA/IWD/2024/018 dated 06.12.2024								
Name of									
the									
Bidder/									
			PRICE S	CHEDULE					
(This E	<b>BOQ template must not be modifie</b>	d/replaced l	by the bid	der and the s	same should be	uploaded after filling the relevent			
columns	, else the bidder is liable to be rej	ected for th	is tender.	Bidders are	allowed to ente	r the Bidder Name and Values only)			
NUMBER	TEXT #	NUMBER #	TEXT#	NUMBER	NUMBER #	TEXT#			
SI.	Item Description	Quantity	Units	Estimated	TOTAL AMOUNT	TOTAL AMOUNT			
No.				Rate with	With GST in	In Words			
				GST	Rs. P				
				Rs. P					
1	2	3	4	5	6	7			
1	Part - B			ļ					
1.01	ARMO of Electrical Works at IIT Goa	1.000	Job	1976859.47	1976859.47	INR Nineteen Lakh Seventy Six			
	as per Part-B from Item No. 4 to					Thousand Eight Hundred & Fifty Nine			
	109 of Schedule of Quantites					and Paise Forty Seven Only			
Total in Fig	luros				1076050 47	INR Nineteen Lakh Seventy Six			
TOTAL III FIG	Total in Figures				1976659.47	Thousand Eight Hundred & Fifty Nine			
						and Paise Forty Seven Only			
Oueted Ba	te in Figures				0.00	INR Zero Only			
Quoted Ra	ite iii rigures		Select		0.00	INK Zelo Olliy			
Quoted Ra	te in Words	INR Zero Only							

- 1. The quoted rates shall be firm and the bidder has to quote for works in percentage only (At par or Below or Above).
- 2. L1 will be decided on composite basis i.e. on basis of total of Part-A (BoQ1) + Part-B (BoQ2). Bids submitted without quoting in any of Part-A (BoQ1) and/or Part-B (BoQ2) will be treated as unresponsive and will be summarily rejected.
- No labour huts/stay shall be allowed in IIT Campus and nothing shall be paid extra on this account.
- 4. The contractor must visit the site of work /buildings before quoting the rates.
- 5. Site shall be made available in parts or phases as per requirement and directions of Engineer in Charge and nothing extra on this account shall be paid to the contractor.
- 6. The rates for different items of work shall apply for all Heights/ Lifts & Depths (Internal or External) /Leads and nothing extra shall be paid on these accounts.
- 7. Bamboo ladder, scaffolding, jhula, ladders etc. to carryout works at all heights/lifts shall be arranged by the contractor at his own cost. Nothing extra shall be paid on these accounts.
- Rate quoted by the contractor shall be inclusive of GST, freight charges etc. Nothing extra on this account shall be paid to the contractor. GST will be payable as per actual rates at the time of payment.
- The firm, who will fail to comply any of the above said condition, their bid will summarily be rejected.
- 10. I/We have gone through the terms & conditions as stipulated in the tender and confirm to accept and abide the same.

Seal ar	nd Sign of Bidder
**	********************************