



IIT PALAKKAD

**Indian Institute of Technology Palakkad**  
**भारतीय प्रौद्योगिकी संस्थान पालक्काड**

Nurturing Minds For a Better World

**NOTICE INVITING TENDER FOR**

**NAME OF WORK: SITC OF 1 NO. 1000KVA OUTDOOR TYPE TRANSFORMER WITH  
OLTC IN PLACE OF 1000KVA USS AT NILA CAMPUS, SHIFTING OF USS TO MAIN  
CAMPUS AND CONNECTED WORKS AT IIT PALAKKAD**

Sl. No.	Events	Date and Time
1	Notice Inviting BID (NIT) No.	17/IITPKD/EWD/ELE/2024-25/009
2	Date of Publication	14-06-2024
3	Date / Time of closing	27-06-2024, 1500 hrs
4	Opening of Bids	27-06-2024, 1530 hrs
5	Estimated Cost put to bid	Rs. 69,62,000/-
6	Earnest Money Deposit (EMD)	Rs. 1,39,240/-

Engineering works Division  
Indian Institute of Technology Palakkad (Nila  
Campus) Near Gramalakshmi Mudralayam,  
Kanjikode West, Palakkad – 678 623-  
Email: [ewd-@iitpkd.ac.in](mailto:ewd-@iitpkd.ac.in)

## 1. GENERAL

- 1.1. Indian Institute of Technology Palakkad (hereinafter called "IITPKD") invites online Tenders under Two-Bid System as per the specifications given in Annexure-I.
- 1.2. The tender documents may be downloaded from <https://mhrd.euniwizarde.in/>. Last date/time for submission of the bids in ONLINE mode is **27-06-2024, 1500 hours**. The bids will be opened by the duly constituted Committee or The Chairman, Engineering Works Department, through online mode. The technical bids will be opened and examined by a technical committee or Engineering Works Department, which will decide the suitability of the bid as per the specifications and requirements of IITPKD. Only those who qualify in the technical evaluation will be graduated to the opening of financial bids. In case of any holiday or unforeseen closure of the institute on the scheduled day of opening of the bids, the bids will be opened on the next working day at the same time, but the deadline for submission of bids remains the same as indicated above.
- 1.3. The bids shall be submitted online in MHRD Portal (<http://mhrd.euniwizarde.in/>)
- 1.4. The responsibility of submission of the bids on or before the last date shall rest with the tenderer.
- 1.5. Canvassing or offer of an advantage or any other inducement by any person with a view to influencing acceptance of a bid is an offence under Laws of India. Such action will result in the rejection of the bid, in addition to other punitive measures.
- 1.6. Each tenderer shall submit only one bid, either by himself or as a partner in a joint venture or as a member of consortium. If a bidder or if any of the partners in a joint venture or any one of the members of the consortium participate in more than one bid, the bids (of both the individual and the partnership/consortium/joint venture) are liable to be rejected.
- 1.7. The bidder shall bear all costs associated with the preparation and submission of his bid and IITPKD shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tender process.
- 1.8. The Tender Document is not transferable. The bidder shall make a copy of the tender document before submitting the same to the concerned office.
- 1.9. IITPKD will respond to any request for clarification or modification of the Tender Document that is received up to FIVE (05) days prior to the deadline for submission of bids prescribed by IITPKD. For this purpose, the prospective bidder(s) requiring clarification in the Tender Document shall notify IITPKD in writing at the address mentioned. Any such clarification, together with all details on which the clarification had been sought, will be published in the website.
- 1.10. Except for any such written clarification by the Institute, which is expressly stated to be an addendum to the tender document issued by the Chairman, EWD, IIT Palakkad, no written or oral communication, presentation or explanation by any other employee of any of the Sections/Departments of the Institute, shall be taken to bind or fetter the Institute.
- 1.11. **EARNEST MONEY DEPOSIT (EMD)**
- 1.12. The bidder shall furnish EMD of **Rs.1,39,240/- (Rupees One Lakh Thirty Nine Thousand Two Hundred and Forty Only)** through an online payment gateway in the E-Wizard.
- 1.13. Bids not uploaded by EMD shall be DISQUALIFIED
- 1.14. EMD of the successful bidder shall be returned on receipt of the prescribed Performance Security and after signing of the contract agreement.
- 1.15. EMD of the unsuccessful bidders will be returned to them at the earliest after expiry of the final bid validity and latest by the 30th day after the award of the contract.
- 1.16. EMD shall be forfeited
  - a. if the bidder withdraws his bid during the period of validity of the tender.
  - b. if the successful bidder refuses or neglects to execute the contract or fails to furnish the required Performance Security within the time frame specified by the Institute.
- 1.17. c. if the successful bidder fails to execute the Contract on specified timeline  
The firms who are registered with National Small Industries Corporation (NSIC) / or Small Scale Industrial (SSI)/ Micro & Small Enterprises (MSMEs) are exempted from furnishing the EMD. Self attested photocopy of valid registration certificate issued by competent authority for **"Electrical equipment"** to be uploaded with the technical bid for exemption of EMD.

## **2. ADDENDUM IN THE TENDER DOCUMENT**

- 2.1. At any time prior to the deadline for submission of bids, IITPKD may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Tender Document by way of addendum(s).
- 2.2. Addendum will be intimated through the MHRD portal and the bidders shall ensure that the addendums are carried out in the bid before submission. The addendums will not be published in newspapers. Bidders should regularly visit the MHRD portal to keep themselves updated.
- 2.3. No extension in the bid due date/ time shall be considered on account of delay in submission of bid.

### **2.4. COMPOSITION OF THE TENDER DOCUMENT**

The Tender Document comprises of:

- (a) Instruction to the bidders including terms and conditions
  - (b) Schedule of Quantity (Annexure-I)
  - (c) Techno-Commercial Parameters (Annexure-II)
  - (d) Compliance Statement (Annexure-III)
  - (e) Format of Performance Security (Annexure-IV)
  - (f) Declaration (Annexure-V)
  - (g) Fall clause notice certificate (Annexure-VI)
  - (h) Format for Self Declaration (Annexure - VII)
  - (i) Declaration for Not debarred / Blacklisted (Annexure IX)
- 2.5. The bidder is expected to examine all instructions, forms, terms and conditions in the bid Document. In the event of discovery of any missing pages, the bidder shall inform the same to the Section/ Department concerned. Failure to furnish the information required by the Tender Document or submission of a tender not substantially responsive to the bid Document in every respect will be at the bidder's risk and may result in rejection of the bid.
  - 2.6. The bidder shall not make or cause to be made any alteration, erasure or obliteration to the text of the Tender Document.

## **3. LANGUAGE/FORMAT/SIGNING OF THE BID**

- 3.1. The bid prepared by the Bidder and all correspondence and documents related to the tender exchanged by the Bidder and IITPKD shall be in English and the Contract shall be construed and interpreted in accordance with that language. If any of the brochures, leaflets or communication is prepared in any language other than English, a translation of such document, correspondence or communication shall also be provided at the cost and risk of the bidder. The translation so provided shall prevail in matters of interpretation. The bidder, with respect to such documents, correspondence and communications, shall bear the costs and risks of such translation.
- 3.2. The documents comprising the bid shall be typed or written in indelible ink and all the pages shall be signed by the bidder or a person or persons authorized by the bidder. All the pages of the bid shall be numbered and except for unamendable printed, shall be signed by the person or persons authorized.
- 3.3. The bid shall not contain any internalizations, erasures, overwriting, except to correct errors made by the bidder, in which case the person or persons signing the bid shall initial such corrections with date.

## **4. DOCUMENTS COMPRISING THE BID**

- i. The Bids shall be submitted online through MHRD portal (<https://mhrd.euniwizarde.in/>)
- ii. Bids submitted in any mode other than ONLINE will be rejected outright.
- iii. The bidder must have a registered office in Karnataka/Tamil Nadu/Telangana/Andhra Pradesh or Kerala. Certificate of registration for the offices to be provided.
- iv. The Agency must have a valid electrical license for carrying out the work. Copy of the same must be uploaded along with the tender documents.
- v. Documents establishing conformity of the terms and conditions of the Tender Document shall be provided along with the bid. The offer/bids should be sent only for a system or

item that is available in the market and supplied to a number of customers. Bids for a prototype machine will not be accepted.

- vi. Compliance or Confirmation report with reference to the specifications and other terms and conditions should also be obtained from the principal.
- vii. Information related to the agency/bidder such as photocopies of the Registration/PAN/GST/TIN shall be furnished.
- viii. The technical bid should consist of all technical details along with commercial terms and conditions.
- ix. No prices should be included in the technical bid. Financial Bid should indicate item-wise prices for the items mentioned in the technical bid.
- x. Bidders, who are bidding for this NIT shall, Digitally signed tender documents should be uploaded in Cover One.

## **5. BID PRICES**

- i. Prices must be quoted separately for each item identified.
- ii. Price quoted for the item must include all costs associated with packing, transportation, insurance, delivery of material, loading and unloading on DOOR DELIVERY basis to the institute including its supply, installation testing and commissioning.
- iii. Rate shall be inclusive of GST and shall not be added separately.
- iv. Prices quoted by the bidder shall be fixed during the validity of the bid.

## **6. BID CURRENCY**

6.1. Prices of the items shall be quoted in Indian Rupees.

## **6.2 CONFORMITY OF THE TENDER DOCUMENT**

- i. The bid document consisting of specifications, the schedule of quantities of various items to be executed and the terms and conditions of the contract and other necessary documents except Standard General Conditions of Contract can be seen in the tender document
- ii. The documentary evidence of conformity of the item to the Tender Document may be in the form of written descriptions supported by literature/diagrams/certifications, including:
- iii. A detailed description of the essential technical, functional and performance characteristics of the material that the Bidder is proposing to construct;
- iv. Technical details of the major sub items /subsystems/components of the item;

## **7. PERIOD OF VALIDITY OF BIDS**

Bids shall remain valid for a period of 180 days after the date of deadline for submission of bids prescribed by the Institute.

## **8. MODIFICATION AND WITHDRAWAL OF BIDS**

- i. The Bidder may modify or withdraw the bid after submission only through ONLINE mode,
- ii. within the period of deadline for submission of bids.
- iii. No bids can be modified subsequent to the deadline for submission of Bids.
- iv. No bids can be withdrawn in the interval between the bid submission deadline and the expiration of the bid validity period.

## **9. OPENING AND EXAMINATION OF BIDS**

- i. The bids will be opened on the prescribed date and time as mentioned in the Bid document in ONLINE mode.
- ii. The Institute will evaluate the bids. Those bids, whose qualification in the prequalification criteria will be considered for evaluation of financial bids. Those bids which are found to be either non-responsive, not satisfying the requirements or both will not be considered for opening their financial bids and will be rejected.
- iii. The Institute will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required security has been furnished, whether the documents have been properly signed and whether the bids are generally in order.
- iv. Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price, which is obtained by multiplying the unit

price and quantity, or between subtotals and the total price, the unit or subtotal price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words shall prevail.

- v. The Institute may waive any minor non-conformity or irregularity in a bid that does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.
- vi. Prior to the detailed evaluation, the Institute will determine whether each bid is complete and is substantially responsive to the Tender Document. For purposes of this determination, a substantially responsive bid is one that conforms to all the terms, conditions and specifications of the Tender Document without material deviations, exceptions, objections, conditionality or reservations. A material deviation, exception, objection, conditionality, or reservation is:
  - a. One that limits in any substantial way the scope, quality, or performance of the item; OR
  - b. One that limits, in any substantial way that is inconsistent with the Tender Document, the Institute rights or the successful Bidder's obligations under the Contract;
  - c. One that the acceptance of which would unfairly affect the competitive position of other Bidders who have submitted substantially responsive bids.
- vii. If a bid is not substantially responsive, it shall be rejected by the Institute and may not subsequently be made responsive by the Bidder by correction of the non-conformity.
- viii. The Institute determination of bid responsiveness will be based on the contents of the bid itself and any written clarifications submitted by the Bidder.

#### **10. CLARIFICATION OF BIDS**

During the bid evaluation, the Institute may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be through ONLINE mode ONLY and no change in the price or substance of the bid shall be sought, offered or permitted.

#### **11. EVALUATION OF RESPONSIVE BIDS**

The Institute will evaluate the bids that have been determined to be substantially responsive.

#### **12. CONTACTING THE PURCHASER**

From the time of bid opening to the time of Contract award, if any Bidder wishes to contact the Institute on any matter related to the bid, it shall do so in writing.

If a Bidder tries to directly influence the officials or otherwise interfere in the bid evaluation process and the Contract award decision, his bid shall be rejected.

#### **13. AWARD CRITERIA**

The Institute will award the Contract to the Bidder, whose bid has been determined to be substantially responsive for technical bid and evaluated as the lowest quote. The Institute reserves the right to buy different items/quantities from different bidders considering price of individual/group of item or any other factors as decided by the Committee.

#### **14. INSTITUTE RIGHT TO ACCEPT/REJECT BIDS**

The Institute reserves the right to accept or reject any bid or to annul the bidding process and reject all bids at any time prior to Contract award, without thereby incurring any liability to the Bidders. The Institute reserves the right to negotiate with the Bidder, whose bid has been evaluated as the lowest quote.

#### **15. AWARD OF WORK/PURCHASE ORDER**

Prior to the expiration of the period of bid validity, the institute will issue the Letter of Intent Work/Purchase Order to the successful Bidder in writing. The Work/Purchase Order will constitute the foundation of the Contract.

#### **16. CONTRACT AGREEMENT**

Within fifteen (15) days of receipt of the work Order, the successful Bidder shall sign and date its copy on each page and return it to the Chairman EWD, along with the Performance Security. Copy of Purchase Order duly signed and dated by the successful Bidder on each page shall constitute the Contract Agreement.

## **17. PERFORMANCE SECURITY**

Within fifteen (15) days of receipt of notification of award from the Chairman EWD, the successful Bidder shall furnish the performance security equal to 5% of the Contract value. The Performance Security shall be valid all along the warranty period and shall extend up to sixty (60) days after the date of completion of warranty period.

The performance security shall be a bank guarantee (in the format as provided in (in the format as provided in Annexure-VI of the bidding documents) issued by any Scheduled Bank in India acceptable to the Purchaser or a Demand Draft favoring, INDIAN INSTITUTE OF TECHNOLOGY PALAKKAD payable at PALAKKAD. The performance security shall automatically become null and void once all the obligations of the Supplier under the Contract have been fulfilled, including, but not limited to, any obligations during the Warranty Period and any extensions to the period. The performance security shall be returned to the Supplier not later than fifteen (15) days after its expiration.

## **18. CONTRACT DOCUMENTS**

All documents forming part of the Contract (and all parts of these documents) are intended to be correlative, complementary and mutually explanatory. The Contract shall be read as a whole.

The order of precedence of the Contract documents shall be as follows: Contract Agreement

- a. All other Forms
- b. Tender Document

## **19. AMENDMENT TO CONTRACT**

No amendment or other variation of the Contract shall be effective unless it is in writing, is dated, expressly refers to the Contract and is signed by a duly authorized representative of each party to the Contract.

## **20 . SUPPLIER'S/CONTRACTORS RESPONSIBILITIES**

The Supplier's obligations involve:

Supply of items given in Tender Document.

- **Agency has to arrange an online inspection of the transformer. The date of inspection of the transformer shall be informed well in advance.**
- Making operational, the item (installation, commissioning, testing and validation of the material).
- The Contractor/Supplier shall, unless specifically excluded in the Contract, perform all such work and/or supply all such items, services and materials not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for installation, commissioning, integration and validation of item as if such work and/or items and materials were expressly mentioned in the Contract.
- The Contractor/Supplier shall comply with all laws in force in India. The laws will include all national, provincial, municipal or other laws that affect the performance of the Contract and are binding upon the Supplier. The Supplier shall indemnify and hold harmless, the Purchaser from and against any and all liabilities, damages, claims, fines, penalties and expenses of whatever nature, arising or resulting from the violation of such laws by the Supplier.

## **21. TIME FOR EXECUTION OF THE WORK**

The agency shall complete the work within the period specified in the tender document i.e. within **4 MONTHS** from the date of issue work order of signing the work order or within the period mutually agreed between Institute and supplier.

In the event of failure of supply of the item within the stipulated delivery schedule, the Institute has all the right to purchase the item from other sources on the total risk of the Supplier under the risk purchase clause.

## **22. TERMS OF PAYMENT**

No Advance payment will be made for purchase. Each RA (running account) bill will be allowed provided the value of work is more than 25% of value of work. Final payment will be released after satisfactory delivery, acceptance, installation, commissioning, integration and validation of the item and against the installation report/work completion certification by the

concerned engineer in charge/Chairman EWD.

### **23. TAXES AND DUTIES**

The Contractor/Supplier should ensure payment of all taxes, GST duties, levies and charges assessed by all municipal, state or national government authorities, in connection with the Goods and Services supplied under the Contract. Nothing extra shall be paid on any account. Rates quoted shall be inclusive of taxes and duties.

### **24. PENALTIES**

If the Supplier fails to complete any of the activities in accordance with the time specified for it, or any extension of the time granted by the Institute.

The Institute reserves the right to terminate the contract if the Supplier defaults on any of the time limits by more than 45 days.

### **25. DEFECT LIABILITY**

The Contractor/Supplier warrants that the item, including all subassemblies and components provided, shall be free from defects in the design, engineering/manufacturing, workmanship and performance that prevent the item and/or any of its subassemblies and components from fulfilling the requirements or that limit in a material fashion the operation, reliability, accuracy, sensitivity and precision of the item, its subassemblies and components. Commercial warranty provisions of products supplied under the Contract shall apply to the extent that they do not conflict with the provisions of this Contract.

The warranty period of **12 MONTHS** shall commence from the date of validation/installation of the equipment and hardware and shall extend for the length of time specified in the tender document supra.

If during the warranty period any defect found in the equipment, the Supplier shall promptly, at its sole cost, repair or otherwise make good such defect as well as any damage to the equipment/hardware caused by such defect. Any defective equipment, subassembly or component that has been replaced by the Supplier shall become the property of the Supplier and the new substituted/replaced material in good condition shall become the property of the Institute.

Any defects are such major repair carried out in the material during the warranty period should suitably be replaced with the desired satisfaction of the institute

If the contractor did not address the defects within the time frame or without proper response in communication, then the Institute has its rights to repair the same and recover repairing expenses from the retention.

### **26. WARRANTY AND INDEMNITY**

**Warranty shall be for 12 MONTHS.** The agency hereby shall indemnify and hold harmless the Institute from and against any and/or losses, liabilities and costs (including losses, liabilities and cost incurred in defending a claim alleging such a liability), the Institute may suffer because of any infringement or alleged infringement of any Intellectual Property Rights.

The offer should clearly specify the warranty or guarantee period for the items. Any extended warranty offers from the same shall be mentioned separately.

### **27.EFFECT OF FORCE MAJEURE**

If the agency is prevented, hindered, or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the Institute in writing of the occurrence of such event and the circumstances of the event of Force Majeure within fifteen (15) days after the occurrence of such event. The Contractor/Supplier, when affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect of the event of Force Majeure upon its performance of the Contract and to fulfill its obligations under the Contract, but without prejudice to Institute right to terminate the Contract.

No delay or non-performance by the Supplier caused by the occurrence of any event of Force Majeure shall:

Constitute a default or breach of the Contract.

Give rise to any claim for damages or additional cost or expense occasioned by the delay or non- performance.

If the performance of the Contract is substantially prevented, hindered, or delayed for a single period of more than THIRTY days or an aggregate period of more than SIXTY days on account of one or more events of Force Majeure, the institute shall have the right to terminate the Contract by giving a notice to the Supplier.

**28. EXTENSION OF TIME LIMITS FOR SUPPLY AND MAKING OPERATIONAL, THE ITEM**

The time limit for supply, installation & commissioning, integration & validation shall be extended if the supply is delayed or impeded in the performance of any of its obligations under the Contract by reason of any of the following:

Any occurrence of Force Majeure.

Any other matter specifically mentioned in the Contract.

By such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Supplier.

**29. ASSIGNMENT**

The agency shall not assign to any third party of the awarded Contract or any part thereof without the prior written consent of the Institute

**30. GOVERNING LAW**

The Contract shall be governed by and interpreted in accordance with the laws of India.

**31. SETTLEMENT OF DISPUTES**

Any dispute or claim arising out of/relating to this Contract or the breach, termination or the invalidity thereof, shall be settled by the Hon'ble Courts of Justice at Palakkad.

The page number should be marked in all pages serially (including all supporting documents enclosed with the tender document) and the declaration for the same shall be submitted by the bidder as in Annexure-VII.

IITPKD reserves the right to accept or reject any or all the tenders in part or whole or may cancel the tender at its sole discretion without assigning any reason whatsoever. No further correspondence in this regard will be entertained.



## ANNEXURE – I

### SCHEDULE OF QUANTITY

Sl.No	Description of Item	Qty	Unit
1	Disconnecting the HT cable and LT bus bar from the existing 1000kVA USS with RMU from Nila Campus, shifting the same to new location at Main Campus and installing the same in the existing foundation, testing commissioning etc. as required. The existing LT bus bar dismantled from the USS shall be handed over to the Institute and end feed entry opening in the USS as well as in the LT panel shall be covered with sheet made with 3mm thick GI duly powder coated etc as required.	1	Each
2	<b>RMU</b>		
2.1	SITC of factory made 11KV Outdoor SF6 Gas Insulated RMU, rated of 630A,21KA,3sec with 2 nos motor operated LBS and 2 nos motor operated VCB as per enclosed technical BOM	1	each
3	<b>TRANSFORMER</b>		
3.1	SITC of 1000kVA outdoor type Transformer 11KV/433V DYn11 copper wound Oil type transformer with outdoor type ON load tap changing having maximum rating +5% to -15% in 16 steps of 1.25% and cable terminating box on HT & LT side. Transformer total Losses ( As per latest amendment 2021 of IS 1180 EEL 2/Star 2) Max. losses at 50% loading=2620W , Max. losses at 100% loading=7000W , Impedance of 5.0% Transformer shall be fitted with i) Oil Temperature Indicator - Sensing and tripping ii) Winding Temperature Indicator - Sensing and tripping )	1	each
	<b>HT CABLE LAYING</b>		
4	Supplying of 11 KV (earthed) Stranded Compact Circular Aluminium Conductor, Conductor Screen With Extruded Semi Conducting Compound, XLPE Insulated, Insulation Screening With Extruded Semi Conducting Compound In Combination With Copper Tape, Cores Laid Up, Inner Sheath Of PVC, Galvanised Steel Flat Strip Armoured And Overall PVC Sheathed Cable Conforming To IS 7098 / (Part-II) 1985 With The Latest Amendments With latest amendment of following size etc., as required.( Cable shall be supplied based on the final scheme approved by KSEI)		
4.1	a) 3C x 300 Sq.mm	130	mtr
5	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing masonry open duct as required.		
5.1	a) Above 120 sq. mm and up to 400 sq. mm	50	mtr
6	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing RCC/ HUME/ METAL/HDPE pipe as required.		
6.1	Above 120 sq. mm and up to 400 sq. mm	80	mtr
7	Supplying and making INDOOR cable end termination with heat shrinkable jointing kit complete with all accessories i/c lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11KV grade as required.		
7.1	a) 3C x 300 Sq.mm	10	Each
8	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for		

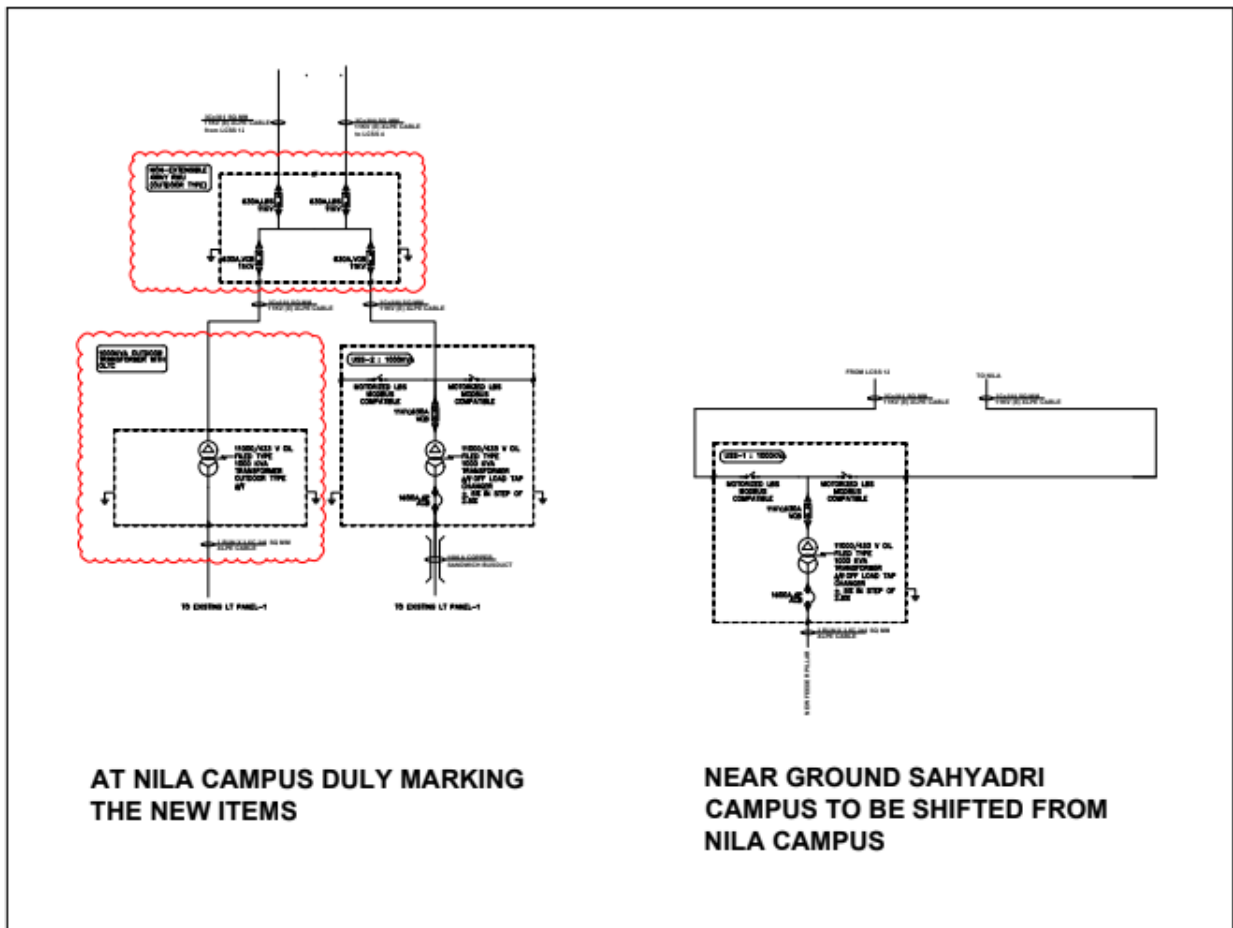
	following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required :		
8.1	3CX300 sq. mm	4	Each
9	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in signal red colour on front side as required.	4	Each
9.1	Providing and fixing H.T. danger notice plate of 250 mm X 200 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in signal red colour on front side as required.	4	Each
	<b>EARTHING</b>		
10	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.	6	Set
11	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	80	Metre
12	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	70	Metre
13	Supplying and laying of following size HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc. in the existing trench, complete as required.		
13.1	110mm PE100 PN8	40	Mtr
	<b>Total</b>		

Sl.No	Item Description	List of Preferred Brands/Make/Model No
1	Oil Type outdoor Transformer with outdoor type OLTC	Schneider / Siemens/ABB/Crompton Greaves/Hitachi
2	11 kV VCB	Siemens / ABB / Schnieder
3	11 kV RMU	Siemens / ABB / Schnieder (System integrator's panel is not allowed)
4	Vaccum Circuit Breakers	GE/ Siemens/ ABB/Schneider
5	Ammeter/ Voltmeter/MF Meter/Energy Meter/Intelligent Meter	AE/ MECO/ Conserve/ Secure (Only Digital type to be used)
6	Selector Switch	BCH/Rishabh/Conserve/Kaycee
7	Multifunction Meter/ Load managers	Schneider/Siemens/Legrand/Secure/L&T
8	Double compression Cable Gland	Peeco/ Commet/ Gripwell / Dowells
9	LT Jointing Kit / Termination	Raychem/ Birla-3M/ M seal
10	XLPE insulated PVC sheathed aluminium/copper conductor armoured Cables up to 1100 V grade	Universal / RPG Cables / Finolex / CCI

11	XLPE Aluminium Cable 11KV	Universal / RPG Cables / Finolex / CCI
12	Cable Glands Double Compression with earthing links	Peeco/ Commet/ Gripwell / Dowells
13	HT jointing & termination kit	Birla-3M/IKEBANA/M-seal/Raychem
14	Any other item not mentioned above	With prior approval of the Engineer-in charge

**DRAWING (Uploaded separately)**

## SLD OF THE PROPOSED WORK



## **1. ADDITIONAL CONDITIONS (GENERAL)**

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

- a) CPWD General Specifications for Electrical Works
- b) Additional technical specifications for this work.
- c) The Indian Electricity Act, 2003.
- d) Indian Electricity Rules 1956 amended upto date.
- e) National Electrical Code 2011.
- f) National Building Code 2016.
- g) Relevant IS Codes.
- h) IEC, ASHRAE standards.

1.2. The Contractor shall, on demand by the Engineer-in-charge, furnish the proof to the satisfaction of the Engineer-in-charge regarding purchase of cables/ switchgears, panel board items etc. from the manufacturer's authorized outlets.

1.3. All hardware items such as screws, bolt nuts, gaskets, knobs etc. which are essentially required for completing an item as per specifications will be deemed to be included in the item even when the same have not been specifically mentioned.

1.4. Prior approval of the Engineer-in-Charge is required for all the materials required to be used on works. Non-standard quality materials shall not be acceptable.

2.

2.1. Bad workmanship shall not be accepted. Such work is liable for rejection and shall be rectified by the contractor at his own cost as per the specifications and directions given by the Engineer-in-Charge.

2.2. All repairs and patch works shall be neatly carried out to match with the original finish and to the entire satisfaction of the Engineer –in- Charge.

2.3. The contractor has to make his own arrangement for stores and watch and ward and no extra claim for this will be entertained.

2.4. The contractor has to make his own arrangement at his own cost for all the general and special T&P if required on this work.

2.5. All the debris due to the electrical works shall be removed from the site by the contractor as soon as the work is completed.

2.6. Materials to be used in work are to be ISI marked. The makers of the materials have been indicated in the list of preferred makes. No other makes will be acceptable. The materials to be used in the work shall be got approved by the Engineer in Charge / his representative before its use at site. The Engineer-in-Charge shall reserve the right to instruct the contractor to remove the material which, in his opinion, is not acceptable.

2.7. The quantities given in the schedule are subject to change to suit site conditions.

2.8. All HT and LT cables shall be supplied with necessary test certificates from the manufacturer.

2.9. Rate quoted shall be inclusive of all taxes, GST, duties, loading and unloading, transportation, installation, testing and commissioning on the existing RCC foundation etc. All the statutory recovery like income tax, will be recovered from the bill for which TDS certificate will be issued.

2.10. Factory inspection of poles: The agency has to inform the factory inspection of poles

well in advance for making arrangements. The inspection can be either through ONLINE through video conferencing or personal visit at factory

2.11. Testing of Equipment: All equipment before installing on the site of work shall be tested and all such results produced to the Engineer-in-Charge. Nothing shall absolve the Contractor from re-performing any tests that the contractor may be called upon specifically by the Engineer-in-Charge or supply company or electrical inspector. All equipments shall be tested jointly with the Engineer-in-Charge as required by various sections of the specifications and test data shall be furnished as required.

2.12. Pre-commissioning Tests: On completion of erection, the contractor shall clean all the equipment thoroughly and inspect the entire installation for correctness and shall furnish a report of completion to the Engineer-in-Charge. Pre-commissioning tests shall commence only on the approval of this report by the Engineer-in-Charge. All tests and the certification thereof shall only be carried out by those authorized, skilled, experienced and certified permit holders of the Supervisor category of State Government's Electrical Inspectorate/ Department. No unauthorized personnel shall ever carry out any such tests. A non-exhaustive list of such tests are stated hereunder.

- a) Phase sequence tests for all panels and 3 phase machinery for ensuring connections as per the correct phase sequence.
- b) Continuity test for identifying short circuits and/or earthing of phases.
- c) Earth resistance tests using earth megger for all earth pits individually isolated and combined. The combined earth resistance values shall not exceed 5 ohm.
- d) Insulation resistance test with high voltage megger on HT side and 500 V megger on LT side.

2.13. The materials used in the work shall be of approved make as per **LIST OF PREFERRED MAKES**.

2.14. Defect Liability Period: All the equipments shall be guaranteed for a period of 12 Months from the date of completion. Any defective materials and equipment shall be replaced free of cost at the direction of the Engineer-in-Charge.

### **2.15. EARTHING/ BONDING**

- a) Earth bus bars shall be supported at suitable intervals. Positive connection between all the metal frames of equipment mounted in the switchboard and earth bus bar shall be provided.

## **3. TECHNICAL SPECIFICATIONS**

### **3.1 Scope and Standards**

All equipment and material shall be designed, manufactured and tested in accordance with the latest applicable IS standards.

### **3.3 11kV Gas insulated compact switchgear .**

Extensible /Non-extensible SF6 Insulated Compact Ring Main Unit as required shall consist of following items:

### **3.4 Load Break Cable Switch(Fixed motorized type)**

Load Break Cable Switch with integral earth switch both having full making capacity shall be used for Incoming and Outgoing cables if used in a ring. Suitable arc proof tested cable covers shall be provided for each cable switch. The cable covers accessible from front shall be mechanically interlocked to its corresponding earth switch and the earth switch shall be

mechanically interlocked to its corresponding cable switch for safety of the operator.

### **3.5 Vacuum Circuit Breaker (Fixed motorized type)**

Vacuum Circuit Breaker shall be used for distribution network of HT switchgear. Vacuum Circuit Breaker complete with operating mechanism, self powered microprocessor based protection relay with associated Current Transformers shall be used for control and protection of Transformer. The VCB being fixed type shall be provided with an Isolator in series for isolation purpose for maintenance. An integral cable earthing switch with full making capacity shall be provided. The arc proof cable covers accessible from front shall be mechanically interlocked to the earthing switch, which in turn shall be interlocked to the isolator for safety of the operator.

3.6 The Load Break cable switches, Vacuum circuit breakers, bus- bars shall be mounted inside a robotically welded sealed for life, stainless steel tank of 3 mm thick/more sheet metal. The operating mechanism of the switches and breakers shall be outside the SF6 tank and accessible from front. The tank should be filled with SF6 gas at adequate pressure (1.3 bars / more). The degree of protection for gas tank should be IP67/more. There shall be provision for filling the SF6 gas at site. Moreover the Stainless Steel Gas Tank shall conform to the sealed pressure system as per IEC and ensure the gas leakage up to 0.1 % per year as per IEC.

3.7 The VCB is required to control distribution Transformer and relay settings and Current transformers shall be selected accordingly.

### **3.8 General Finish**

Totally enclosed, metal enclosed, vermin and dust proof suitable for tropical climate use as detailed in the specification.

### **3.9 Ratings**

The bus bars shall have continuous rating of 630 Amps. The isolator shall have a continuous rating of 630 Amps. Vacuum circuit breaker shall have a continuous rating of 630 Amps in accordance with relevant IS / IEC standard

### **3.10 Breaking & Making Capacity**

The Load Break Cable Switches shall be capable for breaking rated full load current. The same along with its earthing switch shall also be suitable for full making capacity of the system as specified. The complete switchgear shall be suitable for breaking capacity of 21kA symmetrical at 11000 volts three phase.

### **3.11 Busbar:**

Switchgear shall be complete with all connection, bus-bars etc. Copper bus bars continuous rating shall be 630 Amps. The bus bars should be fully encapsulated by SF6 gas inside the robotically welded stainless steel tank.

### **3.12 Protection**

The Vacuum circuit breaker shall be fitted with microprocessor based self powered relay inside the front cover to avoid any tampering. The same shall be used in conjunction with suitable Current Transformer and Tripping Coil for fault tripping of the VCB.

### **3.13 Cable Termination**

Each Cable compartment shall be provided with three bushings of adequate sizes to terminate the incoming and outgoing 11kV 3 Core cables. There shall be enough height (Minimum

450mm) from the base of the mounted switchgear so that the cables can be bent and taken vertically up to the bushings. The Cable termination shall be suitable for Heat shrinkable Termination method so that adequate clearances shall be maintained between phases for Termination. Access to all the cables should be possible from the front of panel only. Cable Termination boots shall be supplied by the switchgear manufacturer.

3.14 Locking Arrangement: Suitable padlocking arrangements shall be provided as stated below:

- (a) CB manual operating handle in the "OFF" position.
- (b) Each feeder Panel operating handles in 'Closed' 'Open" or 'Earth' position.
- (c) Each isolator operating handle in 'Closed',' Open', or 'Earth' position.

4 Ratings:

#### 4.1 Testing

Each type of 11kV Switchgear shall be completely assembled, wired, adjusted and tested at the factory as per the relevant standards i.e. IS.9920, IS:3427, IS: 13118, IEC:265, IEC:298 during manufacturing and on completion

The manufacturer has to submit all the relevant type test reports, temperature rise test reports etc. The substation of same configuration and same or higher capacity should have passed the internal arc tests according to IEC 62271-200 and copies of the test reports shall be submitted.

#### 4.2 Routine Test

The tests shall include but not necessarily limited to the following....

- (a) Operation under simulated service condition to ensure accuracy of wiring, correctness of control scheme and proper functioning of the equipment.
- (b) All wiring and current carrying part shall be given appropriate High Voltage test.

<b>TECHNICAL SPECIFICATION OF OUTDOOR TYPE TRANSFORMER WITH OLTC</b>		
<b>Sl.no</b>	<b>Description</b>	<b>Requirement</b>
1	KVA rating	1000
2	Type of cooling	ONAN
3	Class of insulation	Class A
4	No. of phase and rated frequency	3, 50 Hz
5	Rated voltage	11kV/433V
6	Connected	Delta/star
7	Vector group	Dyn11
8	Winding ( HV-LV )	Copper - Copper
9	Insulation Level ( impulse withstand ) (kV peak)	HV - 75
10	Insulation level (power frequency withstand) (kVrms) HV-LV	28-3
11	Tapping a) Range b) On HV c) Tap changer type	+5% to -10 % @ 1.25% each yes OLTC
12	Temperature rise of oil/winding over design ambient temperature o 50 deg	40/45 (deg)
13	Hot spot temperature rise over a maximum yearly weighted temperature of 32 deg	98 deg
14	Short circuit thermal withstand time (secs)	2
15	% impedance at 75 deg, rated current & frequency % (subject to IS tol)	5
16	Total losses @ 50% load at rated voltage & frequency kW (MAX)	2.62
17	Total losses @ 100% load at rated voltage & frequency kW (MAX)	7
18	Bushings a) Reference standard b) Voltage rating (kV) c) Current rating (Amps)	HV IS 2099 & IS 3347 17.5 250
19	Bushings d) Reference standard e) Current rating	LV & LVN IS 2099 & IS 3347 1400 A
22	Fittings and Accessories as per specification	Yes, IS:2026 & CBIP
23	Reference standard	IS 1180 & IS 2026



24	Termination a) HV b) LV c) Orientation	Cable box Cable box 180 degree
25	Type of transformer tank	Conventional

<b>TECHNICAL SPECIFICATIONS OF OUTDOOR TYPE RMU</b>	
Standards and Mechanical Data	
Metal enclosed switchgear	IEC 62271-200
General purpose switches	IEC 60265-1
Disconnectors and earthing switches	IEC 62271-102
Switch fuse combination	IEC 62271-105
Circuit Breakers	IEC 62271-100
Common Clauses	IEC 60694
Vaccum contactor	IEC 60470
Pressure of SF6 gas	1.4 bar at 20 deg
Cable bushings	DIN 47636
Temperature class	-5 deg - +40 deg outdoor
Degree of protection a) SF6 tank b) Front Cover c) Cable cover d) Enclosure	IP 67 IP 2X IP 3X IP 54
Bus bars	Copper
Earth bar (external)	Copper - bolt dimensions: M10
Thickness of stainless steel tank	2.5mm
Enclosure	IS 632
ELECTRICAL DATA - 12kV - 1min	
Nominal voltage	11kV
Rated Frequency	50Hz
Rated current busbars	630A
Rated current cable switch disconnecter	630A
Short time withstand current - cable switch disconnecter	

with interface C (400-bolt) bushing - vacuum circuit breaker with interface C (400-bolt) bushing	21 kA RMS 3 sec  21 kA RMS 3 sec
Rated current for transformer T-off	630A
Insulation Level : power frequency 1 min	28kV

**ANNEXURE-II**  
**TECHNO-COMMERCIAL BID**  
**(TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)**

A. Company Profile
Name of the Company/Bidder
Postal Address of the Registered Office
Telephone (Landline) No.
Mobile No.
Email Address (Official)
Name of the CEO/Director
Name(s) of the Partners (if applicable)
Registration No. (Upload supporting document)
Type of Firm (Proprietary/Partnership/Private Ltd./Private/MNC/Cooperative/Govt. Undertaking/Any Other)
Email Address and Contact Number(s) of CEO/Director
Year of Establishment
No. of Years of Operations in India
Location of Offices in India / Abroad
PAN (Upload supporting document)
GST (Upload supporting document)
B. Alliances for the Purpose of this Bid, if applicable (Upload supporting document)
Details of Alliance(s)
Type of Alliance(s)
C. Experience/Credentials
D. Service Support and Availability of Spares in India
Location and Address of Service Centres
Whether the OEM offers any service
Whether the service set up maintains stock of Essential Spares in India
Lead time for Supply of Essential Spares
E. Others
Has the firm ever been debarred/blacklisted by any Govt. Organization/Dept.? If 'yes' the details thereof. Upload (supporting document)
Note: Supporting Documents, wherever asked for, shall be uploaded along with the Bid, without which the Bid shall be rejected outright.

ELIGIBILITY CRITERIA FOR BIDDERS

## LIST OF DOCUMENT TO BE SCANNED AND UPLOADED WITHIN THE PERIOD OF BID SUBMISSION

Only those bidders fulfilling the following criteria should respond to the tender.

1. Information related to the agency/bidder such as photocopies of the Registration/PAN/GST/TIN shall be furnished.
2. The enlisted contractors of CPWD, MES, BSNL, Kerala State PWD should upload their valid Registration Certificate and 11kV HT license
3. The contractors should have satisfactorily completed the works as mentioned below during the last three years ending previous day of last date of submission of bid:  
THREE similar completed works each costing not less than the amount equal to Rs. 28 lakh and not less than 800 kVA substation work  
(OR)  
TWO similar completed works each costing not less than the amount equal to Rs. 42 lakh and not less than 800 kVA substation work  
(OR)  
ONE similar completed works each costing not less than the amount equal to Rs. 56 lakh and not less than 800 kVA substation work

“Cost of work” for this clause shall mean completed cost of work as mentioned in the final bill including internal electrical works, if any, carried out under single contract including cost of materials, if any, supplied by clients. However, the cost of materials issued free of cost shall not be considered for calculating the cost of work. The value of executed works shall be brought to current costing level by enhancing the actual value of work at a simple rate of 7% per annum; calculated from the date of completion to the last date of receipt of applications for bids. “Similar work” for this clause means “Building maintenance work of substation and electrical equipments”

5. Digitally signed tender documents should be uploaded in Cover One.
6. Has the firm ever been debarred/blacklisted by any Govt. Organization/Dept.? If ‘yes’ the details thereof (Please upload supporting document). Is any person working with the applicant a near relative of the Employees of IIT Palakkad? If yes, give details (Separate declaration to be uploaded along with tender document)

## ANNEXURE - IV

### LIST OF DOCUMENTS TO BE SCANNED AND UPLOADED WITH IN THE PERIOD OF BID SUBMISSION

Photocopies of the PAN/GST

1. GST registration Certificate of the Kerala State if already obtained by the bidder. If the bidder has not obtained GST registration of Kerala State as required by GST Authorities, then in such a case the bidder shall scan and upload the following undertaking along with other bid documents.
2. "If work is awarded to me, I/We shall obtain GST registration certificate of the Kerala State, within one month from the date of receipt of award letter or before release of any payment by IITPKD, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on a/c of the work executed and/or for any action taken by IITPKD or GST Department in this regard".
3. Copy of Enlistment certificate/ Experience certificate issued by an officer not less than the grade of Executive Engineer.
4. Letter of Transmittal

**ANNEXURE-V  
COMPLIANCE  
STATEMENT**  
(Part of Technical Bid)

The vendor shall,

1. Prepare, sign and submit the Compliance Statement of the specification of the item in the format given below along with the technical bid in the company letter head.
2. Submit separate Compliance Statement of specification sheets for each item.
3. Ensure that the component number and heading in the Technical Specifications is clearly mentioned in the document. If there are any deviations from the specifications mentioned by IIT Palakkad, the vendor should clearly indicate the deviations and give reasons for the deviation with proper justification.
4. Provide the technical leaflet/literature/catalogue or any relevant document for all the quoted items to IIT Palakkad. The information provided in the compliance statement without supporting documents will not be considered for the evaluation of the technical bid and will be treated as non-compliance and may lead to the disqualification of the technical bid.
5. Clearly respond to every requirement given in the technical specifications. Lack of clarity may be considered as lack of information and may subsequently lead to disqualification of the technical bid.

Format of Compliance Statement:

Item No.	IIT Palakkad's technical specification of components as given in Annexure-I	Specifications of model/make quoted by the vendor	Vendor's specification complies with IIT Palakkad's technical specification? (YES/ NO)	Deviation, if any, to be indicated in unambiguous terms	Page no. of relevant specification for the quoted model in the technical manual/leaflet





**ANNEXURE-VII  
DECLARATION**

We hereby undertake that there are \_\_\_\_\_ pages, serially numbered, in the submitted tender including the supporting documents. (Please serially number all the pages including blank page, if any).

We have submitted our principal's exclusive authorization letter which is specific for this tender No. dated \_\_\_\_\_ .

Signature and Seal of the Bidder

## ANNEXURE-VIII

### FALL CLAUSE NOTICE CERTIFICATE

**(To Be Submitted Only Through Online Mode in Appropriate Format)**

This is to certify that we have offered the maximum possible discount to you in our Quotation No.\_dated\_**(Please do not reveal the prices here, which will lead to outright rejection of your bid)**. The prices charged for the Stores supplied under tender should under no event be higher than lowest prices at which the party sells the items of identical description to any other Govt. organization/PSU"s/Central Govt, /State Govt. Autonomous bodies/Central/state Universities/Central/State Educational Institutions, failing which the **"FALL CLAUSE"** will be applicable. The institute will look into a reasonable past period to ensure this. In case, if the price charged by our firm is found to be more, **IIT Palakkad** will have the right to recover the excess charged amount from the subsequent/unpaid bill of the supplier.

Annexure - IX

FORMAT OF UNDERTAKING, TO BE FURNISHED ON COMPANY LETTER HEAD WITH REGARD TO  
BLACKLISTING/ NON- DEBARMENT, BY ORGANISATION

UNDERTAKING REGARDING BLACKLISTING / NON – DEBARMENT

We hereby confirm and declare that we, M/s -----, is not blacklisted/ De-registered/  
debarred by any Government department/ Public Sector Undertaking/ Private Sector/ or any other agency for which  
we have Executed/ Undertaken the works/ Services

For -----

Authorized Signatory

Date:

**FORMAT FOR SELF-CERTIFICATION UNDER PREFERENCE TO MAKE IN INDIA**  
**(TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)**

Format for Affidavit of Self-Certification regarding Minimum Local Content in line with "Make in India" Policy vide GoI Order no. P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020)

Date: \_\_\_\_\_  
 I/We \_\_\_\_\_ S/o, D/o, W/o, \_\_\_\_\_  
 Resident of \_\_\_\_\_

Hereby solemnly affirm and declare as under:

That I will agree to abide by the terms and conditions of the Public Procurement (Preference to Make in India) Order, 2017 (hereinafter PPP-MII order) of Government of India issued vide Notification No:P-45021/2/2017 - BE-II dated 15/06/2017, its revision dated 28/05/2018 and any subsequent modifications/Amendments, if any and

That the local content for all inputs which constitute the said goods/services/works has been verified by me and I am responsible for the correctness of the claims made therein.

<b>Tick (✓) and Fill the Appropriate Category</b>	
<input type="checkbox"/>	I/We _____ [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is equal to or more than 50% and come under " <b>Class-I Local Supplier</b> " category.
<input type="checkbox"/>	I/We _____ [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is more than 20% but less than 50% and come under " <b>Class-II Local Supplier</b> " category.
<input type="checkbox"/>	I/We _____ [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is less than or equal to 20% come under " <b>Non-Local Supplier</b> " category.

For and on behalf of..... (Name of firm/entity)

Authorized signatory (To be duly authorized by the Board of Directors)  
 <Insert Name, Designation and Contact No.>

[Note: In case of procurement for a value in excess of Rs. 10 Crores, the bidders shall provide this certificate from statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.]