**COLLEGE OF ENGINEERING AND TECHNOLOGY, BHUBANESWAR, ODISHA**



**DEPARTMENT OF ELECTRICAL ENGINEERING**

**(A constituent college of BPUT, Odisha)**

**Techno Campus, Ghatikia, Bhubaneswar, Odisha, Pin-751003**

**Website:** [**www.**](mailto:www.) **cet.edu.in E-mail:**  [**principalcet@cet.edu.in**](mailto:%20principalcet@cet.edu.in)

**TENDER DOCUMENT: FOR SUPPLY and INSTALLATION OF LAB EQUIPMENTS**

Department of Electrical Engineering is intends to procure two items mentioned below

1. **Solar PV Grid Tied Training System.**
2. **Wind Turbine Emulator.**

College of Engineering and Technology invites sealed Tender in two bid systems Technical bid and Financial bid from eligible/bonafied suppliers/OEMs/Firms who have supplied similar items to NITs, IITs and Central Government Organizations. The Tender documents can be downloaded from the official web site of CET **www.cet.edu.in**

|  |  |  |  |
| --- | --- | --- | --- |
| Last date of sale of Tender Document | **12.30** | **PM. On 25-03-2015** |  |
|  |  | |  |
| Cost of Tender Document | **Rs. 500/-** | |  |
|  |  |  |  |
| Last Date, time & place for submission of tender | **01.00 PM. on 15-03-2015 Speed Post / Courier**  **or Person drop in Tender Box at CET, Bhubaneswar** | |  |
| document |  |
|  |  |
| EMD (To be attached with tech Bid by way of DD in | **Rs.10,000/-** (Refundable to Unsuccessful bidders within one month of finalization of the Tender process) | |  |
| favour of Principal CET, Bhubaneswar, payable at Bhubaneswar) |  |
|  |
|  |  |
| Date & Time of Opening of Tender Documents | **03.00** | **PM. On 25-03-2015** |  |
|  |  |  |  |

Sd/-

**PRINCIPAL**

**---------------------------------------------------------------------------------------------------------------------------------**

~ 1 ~

**COLLEGE OF ENGINEERING AND TECHNOLOGY,BHUBANESWAR**

**DEPATRTMENT OF ELECTRICAL ENGINEERING**

**(A constituent college of BPUT, Odisha)**

**Techno Campus, Ghatikia, Bhubaneswar, Odisha, Pin-751003 Website:** [**www.**](mailto:www.) **cet.edu.in**

**E-mail:** [**principalcet@cet.edu.in**](mailto:principalcet@cet.edu.in)

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* **TENDER DOCUMENT: FOR SUPPLY and INSTALLATION OF LAB EQUIPMENTS**

Department of Electrical Engineering is intends to procure two items mentioned below

1. **Solar PV Grid Tied Training System.**
2. **Wind Turbine Emulator.**

College of engineering and technology invites sealed Tender in two bid systems Technical bid and Financial bid from from eligible/bonafied suppliers firms who have supplied similar items to NITs, IITs, Government Organizations. The Tender documents can be downloaded from the official web site of CET **www.cet.edu.in**

|  |  |
| --- | --- |
| **Tender No.: CET/2221/EED Date:04/03/2015** | |
| Last date for download of Tender Document | **12.30 PM. on 25-03-2015** |
| Cost of Tender document | **Rs.500/-** |
| Last Date, Time & place for submission of  Tender Document | **01.00 PM. on 25-03-2015 by Speed Post/ Courier or in Person to drop in Tender Box at CET,BBSR** |
| **EMD (To be attached with Tech Bid by way**  **of DD in favour of Principal CET, payable at Bhubaneswar.** | **Rs.10,000/-**(Refundable to unsuccessful bidders within one month of finalization of the Tender process) |
| Date & Time of Opening of Tender Documents | **03.00 PM. on 25-03-2015** |

**Sd/-**

**PRINCIPAL**

~2 ~

College of Engineering and Technology, Bhubaneswar is a Constituent college of BPUT, Odisha ,Government of Odisha is intended to install 02 Equipments i) Solar PV Grid Tied Training System ii) Wind Turbine Emulator in the Energy System Laboratory of Electrical Engineering Department.

On behalf of Department of Electrical engineering Principal, CET invites Tenders in two bid system from reputed and expert Companies/OEMs having proven track record in supply, installation and commissioning of similar type of Lab Equipments in major institutions like NITs, IITs and Central Government Organizations having annual turnover of not less than Rupees **3 Crores** in last year will be considered for pre-qualification. Proof in this regard should be attached. Detailed terms and conditions, tender format and specifications of the items can be downloaded from the institute’s website [**www.cet.edu.in**](http://www.cet.edu.in) from **01-03-2015 to 25-03-2015**.(on 25/03/15 up to 12.30 PM only)

Date: 04 March,2015

Sd/-

**PRINCIPAL**

~ 3 ~

**NOTICE INVITING TENDERS**

**Invitation to bid for supply, installation & Commissioning of Lab equipments i) Solar PV Tied Grid Training System ii) Wind Turbine Emulator at Department of Electrical Engineering, CET, Bhubaneswar-751003.**

**PART-I (TECHNICAL BID)**

**PART-II (FINANCIAL BID)**

1. We have the pleasure in inviting lowest tender for the aforesaid work.
2. **Eligibility Criteria.**

Following eligibility criteria are required to be fulfilled by the tenderer:

1. The Bidder shall be a registered company/firm/Dealer involved in the supply, installation, testing, commissioning and maintenance of such Lab Equipments as mentioned above in the labs of reputed institutions like NITs, IITs or any Central Govt. Organization. (Attach Proof)
2. The Tenderer in case of Prime Equipment Manufacturer shall be engaged in manufacturing, supplying, Installation, Testing & Commissioning of Similar types of lab equipments for at least last 3 years and shall submit a self declaration on their letter-head, in this regard along with the tender.
3. The tenderer in case of Authorized Distributor/ Authorized Dealer shall be engaged in Supply, Installation, and Testing & Commissioning of such lab equipments at least last 3 years and shall submit a self declaration on their letter-head, in this regard along with the tender.
4. The tenderer in case of Authorized Distributer / Authorized Dealer shall submit a undertaking, indicating that he/she is/are authorized to sell the product, along with the tender documents.
5. The Biding firm/company//OEMs/vendor/Dealer must be a registered company under relevant act. (Attach proof).
6. Annual turnover of not less than Rupees 3crores in last year. (Attach proof)
7. The tenderer must have cleared Sales Tax and Income Tax payment up-to- date. Attested copies of Sales Tax Clearance Certificate or non-assessment certificate from the concerned Sales Tax Authority valid up-to-date and attested copy of Income Tax Clearance Certificate or non-assessment certificate, as the case may be, from the competent authority, up-to-date. and/or PAN Number must be enclosed along with the Tender documents. Valid Sales Tax Registration Certificate/ VAT Certificate
8. Capability of vendor to complete this task in 30 days after issue of work order. (Attach undertaking)
9. Undertaking for unconditional acceptance of tender term and conditions. (Attach undertaking)
10. All pages of tender documents must have signed by the tenderer with seal. Failing which the tender document shall be liable for rejection.
    * 4 ~
11. Bidder must submit a certificate of undertaking that he is in position to Supply, Installation and commission of **Lab equipments i) Solar PV Tied Grid Training System ii) Wind Turbine Emulator** and its accessories with a credit of 30 days after clear receipt of completion of the task.
12. Product Brochures containing detailed description of essential technical and performance characteristics of offered equipment.
13. The manufacturer selected shall provide Training in operation and application of the Instrument for the R&D work and experiments to user/faculty members/Lab Technician etc at CET.
14. The supplier must have the ability to incorporate minor modifications of the spec if necessary.
15. **GENERAL TERMS & CONDITIONS** 
    1. The tender forms will be available only in the college website [**www.cet.edu.in**](http://www.cet.edu.in) 04-03-15 to 25-12-15 (on 25/03/15 up to 12.30PM only).
    2. The Technical Bid should accompany a Demand Draft of Rs. 10,000/- (Rupees Eighty Thousand Only) drawn on any nationalized Bank in the Name of “Principal CET, Bhubaneswar” payable at Bhubaneswar towards Earnest Money Deposit (EMD), Tender document fee of Rs. 500/-(Nonrefundable) in the form of Demand Draft of any nationalized bank in the Name of “Principal CET, Bhubaneswar” payable at Bhubaneswar to be enclosed along with Technical Bid. Tender received without EMD & Tender Fee or lesser amounts will be summarily rejected.
    3. The tenders will be opened on 25.03.2015 at 3:00PM in presence of the tenderers or their authorized representatives. Authorized representatives will be required to produce their authorization before opening of the bid, failing which they will not be allowed to be present.
    4. No alteration or amendments shall be allowed after submission and opening of the tenders.
    5. The “Technical Bid” and “Financial Bid” put in different envelops duly marked as such on the top of the envelope shall be put in one big envelope marked as ‘**Tender Document/EED/LAB EQP1’**. The big envelope should be addressed to the Principal, College of Engineering & Technology, Bhubaneswar and must reach CET, Bhubaneswar Technocampus, Ghatikia, Bhubaneswar, Khurda, Odisha pin-751003 either by **speed post / Courier / Person drop in tender box** on or before 01.00 PM. on 25.03.15.
    6. Rate should be clearly written in the columns specified. All erasures and Alterations made while filling the tender must be attested by initials of the tenderers. Over writing of figures is not permitted, failure to comply with either of these conditions will render the tender void at the Principal, CET option. No advice of any change in rate or conditions after opening of the tender will be entertained.
    7. Each of the tender documents should be signed by the person or persons submitting the tender in token of his/their having acquainted himself/themselves with the General Conditions of the Contract, Scope of work, Specifications, Special Conditions, etc., as laid down. Any tender with any documents not so signed is liable to be rejected.

~ 5 ~

* 1. The tenders submitted on behalf of the Firm shall be signed by all the partners of the Firm or by a partner who has the necessary authority on behalf of the firm to enter into the proposed contract similarly in case of a company, only the person authorized by the articles of the company can sign. Otherwise the tender is liable to be rejected by the Principal, CET.

1. The list of technically qualified bidders will be published on the Notice Board of CET, Bhubaneswar on the same day or after technical evaluation.
2. The financial bids of technically qualified bidders only will be opened on **2PM, 27-03-2015.**
3. Tender shall remain open for acceptance by the Principal, CET for a **period of** **60 days** from the date of opening the financial bid which may beextended by mutual agreement and the tenderers shall not cancel or withdraw the tender during this period/extended period.
4. The order will be awarded to **lowest quoted bidder** for Supply, Installation, testing and commissioning of split type AC units and its accessories, if satisfies all the terms condition and fulfilling required technical specifications.
5. Selection of a firm for award of contract will not be made solely on the basis of lowest rates quoted by a vendor. Previous experience/performance, manpower, office location etc. will also be considered in this regard.
6. The tenderer will have to pay security deposit equal to the amount of 5% value of work in the form of fix deposit or bank guarantee or it can be deducted from his bills.
7. The amount of security deposit will be released after satisfactory completion of defect liability period.
8. **The total cost quoted should be inclusive of taxes. Applicable taxes to be mentioned separately as indicated in financial bid.**
9. CET reserves the right to accept / reject / select more than one Agency andto annul the bidding process of any or all bids at any time prior to award of contract without thereby incurring any liability to the affected bidders.
10. The tender will be appraised by committee formed by CET.
11. CET shall without prejudice to its other remedies under the contract, deduct from the Contract price, as Liquidated Damages a sum equivalent to 2.5% of the price of delayed Goods or unperformed services for delay of each day until actual delivery or performance, up to a maximum deduction of 20% of the contract price. Once the maximum is reached, CET may consider termination of the contract and can forfeit the Performance Guarantee amount.
12. The EMD amount and Financial bids of suppliers who are not qualified technically will be returned unopened after completion of the tender process.
13. The payment will be made within thirty working days after successful supply and installation is made.
14. The Principal, CET, reserves all rights to reject any tender including of those tenderers who fail to comply with the instructions without assigning any reason what so ever and does not bind itself to accept the lowest or any specific tender. The decision of Principal, CET in this regard shall be final and binding
15. In case of any dispute arising with regards to this tender or its conclusion, the decision of the Principal CET shall be final.

~ 6 ~

**4. DEFINITION**

1. The term Institute shall mean CET, Bhubaneswar.
2. The term Bidder shall mean the bidder selected by the Institute for Supply, Installation and commissioning of the Lab equipments and its accessories at Department of Electrical Engineering Laboratory Building.
   * 1. **Scope of work:**
3. Supply, Installation and Commissioning of Lab equipments a) Solar PV Grid Tied Training System b) Wind Turbine Emulator.
4. Solar PV Grid-Tied Training System should be compact designed which can be used for training and research of complete life cycle of Grid Tied System. This system should help in developing the basic understanding towards function of PV module, power electronics, its applications in power system and challenges like harmonics and grid synchronization, Power Quality analysis at PCC .

List of Experiments to be able to perform.

1. Theoretical Study of various components of complete system.
2. Set up for virtual grid and comparison with actual grid in terms of voltage regulation and THD at PCC
3. Observation of current for linear & nonlinear loads and voltage waveform at PCC
4. Power factor improvement using capacitor bank and its impact on power quality at PCC
5. Synchronization of grid tied inverter, observation of current waveform and calculations for distortion, displacement and power factor of grid tied inverter.
6. Evaluation of the active, reactive power and net energy flow between grid tied inverter, artificial grid & load.
7. Demonstration of Islanding protection for sudden failure of grid
8. Wind turbine emulator should mimic the behaviour of wind turbine for hardware level simulations. The emulator should be compact design. The system should have induction generator coupled to the DC motor with bidirectional inverter connected to the terminals of the generator. The emulator should have following features like Real time Simulation of Static and dynamic behavior of Wind Turbine, Maximum Power Point Tracking capability, Complete standalone wind energy system, Power Balancing using battery bank and bidirectional converter, Can be extended to form micro grid etc.

List of Experiments to be able to perform.

1. MPPT algorithm testing.
2. AC-AC converter control testing.
3. AC-DC control testing.
4. Inverter control testing for different operating conditions
5. Analysis and characterization of wind stand alone system
6. Analysis and characterization of grid connected system
7. Micro-grid and smart grid control testing
8. The system should work for at least minimum period of ten years without any

~ 7 ~

major breakdowns.

1. The Bidder has to make arrangements for showing all parameters/test results on the performance of the machines. If it fails to show the desired results the machine will not be acceptable to the Institute.
2. All the equipment supplied shall be rugged and should operate without any deviation in quality or degradation of equipment performance. All the specification/parameters

shall be guaranteed over the following environmental conditions:

\* Storage Temperature 0 to 70 degree Celsius

\* Operating Temperature 0 to 50 degree Celsius

\* Humidity 95% RH (non-condensing)

All the equipments are intended to operate under 220 V, 50 Hz power supply.

1. The manufacturer selected shall provide Training in operation and application of the Instrument for the R&D work and experiments to user/faculty members/Lab Technician etc at CET.
2. Detailed technical manuals, handbooks, drawings, Warranty card and Factory Quality Assurance checklist, test results and any other certifications mentioned in the Technical specifications shall be supplied along with the consignment.

Supplied manuals/handbooks must cover detailed technical specifications and installation, operation, maintenance and System Safety procedures.

For Experimental setups details of theory, procedure and methods of taking measurements etc. should be provided in the form of hand books for each experiment in duplicate.

The receipts for taxes paid, if any, for the supplied materials should also be submitted

* 1. **Work implementation**

The work will be implemented in single phase, within 30 days from the date of issue of work order.

~ 8 ~

1. **TECHNICAL SPECIFICATIONS**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Item Description** |  |  |  | **Specifications** | **Qty. Req.** |  |
| 01 | **Solar PV Grid-Tied Training System. (All the components will be in 2 to 3 modular form. PV modules to be mounted on roof top and rest components to be in one or two modules)**   1. PV modules 2. Grid-Tied Inverter(IGBT Based) 3. Inverter for Grid 4. Power Analyzer 5. Necessary Instruments like Ammeter for AC and DC, Voltmeter for AC and DC, Energy meter, Wattmeter. 6. Connecting leads, shading elements, radiation meter 7. Experiment Manual   Necessary protections against over voltage, short circuits, Electrical and Thermal over load etc must be provided. | | | | 460Wp (230Wp\*2)  300W (input Voltage range: 65V-100V DC, output range: 200V-250V AC)  200W, Output : 220V AC, 50Hz, Input-24V DC, Input AC voltage: 200V-220V AC, with Battery Bank :12V/26Ah\*2  As per requirement of the system. |  |  |
|  | 01 Nos. |  |
|  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| 02 | **Wind turbine emulator Setup (All the components will be in 1 to 2 modular form units)**  System should be based on DC motor Induction Generator set.  **Prime Mover**   1. DC motor   Gear Box  3-Phase Autotransformer  1-Phase Autotransformer  Bridge Rectifiers  with fixed field and armature voltage control facility.  **Generation Unit** (Self Excited Induction Generator)  Type  Power rating  No of Poles | | | | 5HP, 300V,10A  3 phase squirrel Cage  1.5kW, 415V AC  08 |  |  |
|  |  |  |
|  | 01 Nos |  |
|  |  |
|  |  |  |
|  |  |  |
|  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No** | **Item Description** | **Specifications** | **Qty. Req.** |
|  | AC Excitation Capacitor  Tacho Generator  DC-DC Converter (for MPP Tracking)  Bidirectional Converter  Battery Bank  Inverter  Filters  Transformer  **Control and Measurement**  Processing Unit  ADC Inputs  PWM Outputs  LAN Connection for Real Time Data Exchange  User Interface and Software      DC Voltmeters  DC Ammeters  AC Voltmeters  AC Ammeters  Any other measuring Instrument as per requirement of Experiments.  Experiment Manual  Necessary protections against over voltage, short circuits, Electrical and Thermal over load etc must be provided. | 12V, 150Ah  3 Phase, 1kVA  3 Phase L-C  Delta-Star, 1kVA  FPGA based  Must be available  Must be available  Must be available  Must be available  (Software should be developed in house by the Supplier/OEMs)  As per requirements of the System |  |

* + 9 ~

1. **SPECIAL TERMS AND CONDITIONS**
2. **Bidder may visit the site of installation & Commissioning of the Lab equipments units and understand the nature & scope of the work and doubts of any nature should be got clarified before quoting.**
3. Quoted rate should be workable and should include all overheads and profits.
4. Rate should include all taxes, duties, levies, Payment of wages as per Act, VAT etc. and should be firm for the entire contract period. No variation of rates will be allowed. Rates have to be mentioned as per format given in financial bid.
5. No advance payment will be made by CET in any case.
6. Central Sales Tax Concession is to be availed on production of the required certificates applicable to Educational Institution.
7. Any discrepancy in settlement of bills may be brought to the notice of the CET within a period of one month after the settlement of the Bills. The CET will not entertain any claim regarding any dispute in settlement of the bills after the stipulated period.
   1. ~10 ~
8. The bidder shall observe all the safety precautions for the safety of the labour and the employees of the CET during execution of works. He would be responsible for the safety of persons, employed by him.
9. All the conditions of the contract shall be binding on the bidder.
10. In case of any default or failure on the part of the bidder to comply with all/ anyone of the terms/ conditions, CET reserves to itself the right to take necessary steps to remedy the situation including, inter-alia, the deduction of appropriate amounts from dues otherwise payable to the bidder and/or by taking recourse to appropriate recovery proceedings.
11. **Payment terms & conditions**: All the payments for work relating to saidwork would be made after satisfactory completion/commissioning of work, subject to work being executed in accordance with this Contract and scrutiny by Principal, CET, Bhubaneswar and submission of bill.
12. **% of the quoted amount will be kept as performance security and will be returned to the party on satisfactory completion of defect liability period**. EMD deposited by the successful vendor shall beadjusted towards security deposit. No interest on security deposit will be applicable.
13. The Lab equipments after successful commissioning and testing will be duly handed over to the Department after which the work completion certificate will be issued.
14. The CET reserves the right to check the equipments in adherence to the technical Specifications etc. any time during the installation phase.
15. The agreement may be terminated by the CET in case the Party does not adhere to the terms of contract.
16. All payments by the Principal, CET under this contract will be made only at CET, Bhubaneswar by an account payee Cheque after satisfactory completion of work and submission of bill(s) therefore.
17. All disputes arising out of or in any way connected with this Agreement shall be deemed to have arisen at Bhubaneswar and Courts in Bhubaneswar only shall have jurisdiction to determine the same.

**9. Packing and Shipment:**

All the Equipments along with Accessories should be delivered to Department of Electrical Engineering, CET, Bhubaneswar with proper packing to avoid any damages during transportation. Bidder should note that packing and shipment is under the scope of work and should be included in their offer.

1. **Warranty & Comprehensive Maintenance**

**On-Site Warranty**

1. The equipments offered shall conform to the specifications as given in tender/order and shall be guaranteed against defective design, defective quality material supplied, manufacturing defects etc. for a minimum period of 12 months from the date of supply of and installation of the equipments.

~11 ~

1. The Tenderer have right to offer warranty more than 12 months from the date of supply of the Lab Equipments this aspect would certainly be taken into consideration.
2. During the period of warranty, it shall be the responsibility of the tenderer to provide all essential spares and consumables, which may be required for maintenance and trouble-free operation of the devices / components at the tenderer’s cost.
3. The Bidder shall make necessary arrangements for keeping the sufficient spares at site to minimize the down time.

**Comprehensive Maintenance Contract**

1. The tenderer shall be under the obligation of entering into a Comprehensive Maintenance Contract (CMC) with CET for a minimum period of two years, renewable if felt necessary, on mutually acceptable rates, terms and conditions. CMC shall start after the completion of Warranty.

The scope of CMC shall cover maintenance and supply/replacement of materials and components, for smooth and reliable operation of the systems without trouble.

Accordingly, the tenderer has to offer rates for the CMC structure per equipment along with the price for the Systems and other associated Equipment supplied.

**11. Service Facility**

In order to ensure proper and timely after sales service, contact details with addresses of service centre nearest to CET, Bhubaneswar shall be provided along with the bid.

**12. Claims**

1. If the material supplied are found to be off size and shape different than those in the accepted offer and are of specifications lower than those stipulated in the accepted offer, CET shall have right to totally reject the goods and/or to prefer a claim for compensation for the part of goods, which are rejected. The supplier shall reimburse to CET, the actual expenditure incurred, on such goods, within 15 (fifteen) days of its demand.
2. The supplier shall be responsible for arranging the rejected goods to be removed at his cost from CET premises.
3. The supplier shall also compensate for losses, if any, sustained by CET due to defective packing and/or wrong marking of the goods.

**13. Time Frame:-**

The vendor/bidder should ensure the completion of the work within 30 days from the date of awarding of the contract.

**NOTE – If L1 is unable to supply and install the equipments within 30 days, OR if L1 fails to successfully carry out the work, then L2 will be requested to match L1 rates and carry out the work and so on.**

~ 12 ~

**14. Force majeure:**

If either of the parties suffer delay in due execution of their contractual obligation due to the operation of one or more of the force majeure events such as but not limited to, natural disaster, War, earthquake, strikes, Lockouts, fire, epidemics, riots, uncontrollable events, civil commotions etc. the agreed time for the completion of respective obligations shall be extended by a period of the time equal to the period of the delay occasioned by such events. On the occurrence and cessation of any such event, the party affected thereby shall give notice in writing to the other party. Such notices to be given within 15 days of occurrence/cessation of the event concerned. If the force majeure conditions continue beyond 30 days the parties shall mutually decide about the future course of action.

**15. Liquidated Damages**

In case of delay in completion of the contract, liquidated damages (L.D.) shall be levied @ 1% of the full value of uncompleted portion of work per week (part of week to be treated as one week) subject to a maximum of 10% of total contract value. If the uncompleted work, restricts the operation of complete system then LD shall be applicable to total value of contract with approval of Competent Authority.

**Contract has following activities:**

a) Supply of equipments.

c) Installation and Training to the users.

Delay in any stage of work shall invite Liquidated Damages (LD) according to value of the activity as defined above. LD shall be calculated on per system basis and it shall not be linked with the value of complete supply.

**Acceptance**

I/We accept the above terms & conditions and shall comply with them strictly.

Name of Bidder \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Address \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature

Seal of Firm :

~ 13 ~

**COLLEGE OF ENGINEERING & TECHNOLOGY, BHUBANESWAR DEPARTMENT OF ELECTRICAL ENGINEERING**

**(A Constituent College of BPUT, Odisha.)**

**Techno Campus, Ghatikia, Bhuabaneswar Khurda Odisha, Pin-751003 www.cet.edu.in Email:principalcet@cet.edu.in**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**TECHNICAL BID**

(To be enclosed in separate sealed cover)

Name and address of the bidder:

Note: A DD for Rs.10,000/-(EMD) and Rs.500/- (Tender document fee) should be enclosed with this bid.

1. Name of the bidder
   1. Full postal address
   2. Full address of the premises
   3. Telegraphic address
   4. Telex number
   5. Telephone number
   6. Fax number
2. Monthly supply capacity of goods quoted for
   1. Normal
   2. Maximum
3. Total annual turn-over(value in Rupees)(Previous year)

( Copy of Balance Sheet / Audit Statement / IT returns, etc. to be attached as proof)

1. Past supply details for 3 years (Attach proof)
2. Whether similar job work undertaken in the past, if so details.

(Demo of the Lab Equipments to be arranged if required)

**Customer** **Quantity supplied** **Year**

6. Sale Tax No. / TIN No.

**Signature and seal of the bidder**

~ 14 ~

**COLLEGE OF ENGINEERING & TECHNOLOGY, BHUBANESWAR**

**DEPARTMENT OF ELECTRICAL ENGINEERING**

**(A Constituent College of BPUT, Odisha.)**

**Techno Campus, Ghatikia, Bhuabaneswar Khurda Odisha, Pin-751003 www.cet.edu.in Email:principalcet@cet.edu.in**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**FINANCIAL BID**

(To be enclosed in separate sealed cover)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.** | **Item Description** | | | |  |  |  |  | **Make / Model** | **Qty.** | **Unit Cost** | **Total** | **Taxes** | **Any** | **Total** |  |
| **No.** |  |  |  |  |  |  |  |  |  | **Req.** |  |  | **applicable** | **other** |  |  |
| **01** | **Solar PV Grid-Tied Training System.**  **(With all the Components and Specification given.)** | | | | | | | |  |  |  |  |  |  |  |  |
|  | 01 No. |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **02** | **Wind turbine emulator Setup**  **(With all the Components and Specification given.)** | | | | | | | |  |  |  |  |  |  |  |  |
|  |  | 01 No. |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

**Signature and seal of the bidder**

~ 15 ~

**PROFORMA FOR SUBMITTING ELIGIBILITY**

**REQUIREMENT AND UNDERTAKING**

To

The Principal,

CET

Bhubaneswar-751003

**Sub: Submission of Tender for “Supply, Installation & Commissioning of i) Solar PV Tied Grid Training System ii) Wind Turbine Emulator**

Sir / Madam,

Having examined the conditions of contract and specifications including addenda, I/we, the undersigned, offer to undertake Supply, Installation, Testing & Commissioning of i) Solar PV Tied Grid Training System ii) Wind Turbine Emulator at Department of Electrical Engineering, CET, Bhubaneswar, in conformity with the specifications, terms & conditions of Tender.

1. I/We agree to abide by the terms and provisions of the said conditions of the contract and provisions contained in the notice inviting tender. I/We hereby unconditionally accept(s) the tender conditions of

It is certified that I/we have not stipulated any condition(s) in our tender offer. In case any condition(s) are found in our tender offer violated after opening tender, I/We agree that the tender shall be rejected without prejudice to any other right or remedy be at liberty to forfeit the EMD absolutely.

1. I/We hereby submit the earnest money of [INR…………..……….……] for the Tender for the above mentioned work in the form of demand draft.
2. That, I/We declare that I/We have not paid and shall not pay any bribe to any officer of CET for awarding this contract at any stage during its execution or at the time of payment of bills, and further if any officer of CET asks for bribe/gratification, I/We shall immediately report it to the CET authorities.
3. That, I/We undertake that CET’s tender document shall form part of contract agreement.

I/We understand that you are not bound to accept the lowest or any bid, you shall receive.

Thanking you

Yours faithfully

Dated:

Signature of Bidder

Name: ……………………

Telephone:………………..

Witness…...................

Signature....................

Address......................

Enclosures