

#### **CENTRAL UNIVERSITY OF SOUTH BIHAR**

## (Notice Inviting Quotation) INDEX FOR TENDER FORM

Tender Notice No. : CUSB/PSD/EE/Tender/07/2020-21, dated 17/09/2020

Name of work : Tender Bid Document for "Annual Operation &

Maintenance Contract of 1 No. 11/0.433 KV Load Sub-Station, 280 KLD STP, 3 Nos. D.G. Sets, External Lighting and Water Pump House round the clock" at Central University of South Bihar,

Panchanpur, Gaya, Bihar Central University of South Bihar, for a period of 1 year which may be extended for

another one year on mutual consent.

Earnest Money Deposit : Earnest money as mentioned in Tender Notice. in shape of

D.D drawn In favour of Central University of South Bihar,

payable at Gaya From any schedule Bank.

Pre bid Meeting : 24/09/2020 by 11:00 A.M. at CUSB, Panchanpur, Gaya

Last date and time for

Receipt of Bids

08/10/2020 by 04:00 P.M.

Date and Time of opening

of Technical Bids

09/10/2020 by 2:30 P.M.

Place of opening of Bids : CUSB, Panchanpur, Gaya

#### **CENTRAL UNIVERSTIY OF SOUTH BIHAR**

Name of work:

Tender Bid Document for "Annual Operation & Maintenance Contract of 1 No. 11/0.433 KV Load Sub-Station, 280 KLD STP, 3 Nos. D.G. Sets, External Lighting and Water Pump House round the clock" at Central University of South Bihar, Panchanpur, Gaya, Bihar at Central University of South Bihar, Panchanpur, Gaya (Bihar)

I undertake to abide by the terms and conditions as stipulated in the detail tender call notice and conditions of contract.

Signature of the contractor

For Office Use only

1. Total Nos. Corrections :

Total Nos. of Overwriting

3. Total Nos. of Pages :

4. Earnest Money Deposit in shape of :

5. Copy of S.T.C.C : Furnished/Not Furnished6. Copy of I.T.C.C./PAN : Furnished/ Not Furnished

7. Any other enclosure :

Registrar
Central University of South Bihar

# CENTRAL UNIVERSTIY OF SOUTH BIHAR NOTICE INVITING BIDS

The Central University of South Bihar, invites bids "Annual Operation & Maintenance Contract of 1 No. 11/0.433 KV Load Sub-Station, 280 KLD STP, 3 Nos. D.G. Sets, External Lighting and Water Pump House round the clock" in Permanent Campus of Central University of South Bihar, Panchanpur, Gaya from eligible contractors/ authorized representatives who have an experience of the similar work. The last date and time of submission of tender document is 08/10/2020 by 04:00 P.M. The detailed tender document is available on the University website <a href="www.cusb.ac.in">www.cusb.ac.in</a>. The cost of tender form is Rs. 500/- (Rs. Five Hundred only) and can be purchased by payment of the cost either in cash or in the form of DD, from Central University of South Bihar. The tender forms downloaded from University website must be accompanied by DD of Rs. 80,000/- (Rupees. Eighty Thousand only) in favour of Central University of South Bihar.

Registrar

### **CENTRAL UNIVERSTIY OF SOUTH BIHAR**

"Annual Operation & Maintenance Contract of 1 No. 11/0.433 KV Load Sub-Station, 280 KLD STP, 3 Nos. D.G. Sets, External Lighting and Water Pump House round the clock" at Central University of South Bihar, Panchanpur, Gaya (Bihar).

## **TECHNICAL BID**

Note: This is to be kept in Envelope "B" sealed and it should be written on envelop that

Tender for "Annual Operation & Maintenance
Contract of 1 No. 11/0.433 KV Load Sub-Station,

280 KLD STP, 3 Nos. D.G. Sets, External Lighting and Water Pump House round the clock" at

Central University of South Bihar"

# CENTRAL UNIVERSTIY OF SOUTH BIHAR NOTICE INVITING BIDS/ TENDER NOTICE

The Central University of South Bihar, invites bids for "Annual Operation & Maintenance Contract of 1 No. 11/0.433 KV Load Sub-Station, 280 KLD STP, 3 Nos. D.G. Sets, External Lighting and Water Pump House round the clock" at Central University of South Bihar, Panchanpur, Gaya (Bihar) from manufactures/authorized representatives who have experience of similar work. Details are as follows:-

|            |                        |            |              | Last date &   |                |                    |
|------------|------------------------|------------|--------------|---------------|----------------|--------------------|
| SI.<br>No. | Description of<br>Work | Estimated  | Earnest      | time of       | Time & date of | Contract<br>Period |
|            |                        | Cost       | Money to     | submission of | opening of     |                    |
|            |                        | (Rs.)      | Deposited    | Tender        | tender         |                    |
|            |                        |            |              | document      |                |                    |
| 1.         | "Annual                |            |              | 08/10/2020    | 09/10/2020     | Initially for      |
|            | Operation &            | 40 Lakhs   | Rs. 80,000/- | by 04 PM      | by 2:30 PM     | one year           |
|            | Maintenance            | (Rs. Forty |              |               |                | from the           |
|            | Contract of 1          | Lakhs)     |              |               |                | date of start      |
|            | No. 11/0.433 KV        |            |              |               |                | of work.           |
|            | Load Sub-              |            |              |               |                | Forty Lakh.        |
|            | Station, 280           |            |              |               |                |                    |
|            | KLD STP, 3             |            |              |               |                |                    |
|            | Nos. D.G. Sets,        |            |              |               |                |                    |
|            | External               |            |              |               |                |                    |
|            | Lighting and           |            |              |               |                |                    |
|            | Water Pump             |            |              |               |                |                    |
|            | House round            |            |              |               |                |                    |
|            | the clock" at          |            |              |               |                |                    |
|            | Central                |            |              |               |                |                    |
|            | University of          |            |              |               |                |                    |
|            | South Bihar,           |            |              |               |                |                    |
|            | Panchanpur,            |            |              |               |                |                    |
|            | Gaya, Bihar            |            |              |               |                |                    |

2. The tender must be accompanied by a Demand draft for the amount mentioned as above in Indian Rupees only on a schedule bank drawn in favour of Central University of South Bihar, payable at Gaya as Earnest Money for the above tender.

#### **Eligibility Criteria:**

- a. **Financial:** The Firm should have Average annual financial turnover of at least Rs. 35 Lakhs (Rupees Twenty Five Lakhs Only) during any of the preceding last 3 consecutive financial years.
- b. Physical: (i) Three similar works in Central Government/ State Government/ PSU/ Central or State Universities/ CPWD/ MES/Railway/Reputed Private Firm costing not less than Rs. 20 Lakhs or two similar works costing not less than Rs. 28 Lakhs or one similar work costing not less than Rs. 32 Lakhs in the last 7 years ending on the last day of the month previous to the one in which the tenders are invited. "Similar Work" is defined as Operation or Maintenance work of Electrical Substation/STP/Pump House/External Electrical works.
  - (ii) Vendor should have valid electrical license issued by the Competent Government Authority.
- 3. Sealed Tender Documents duly signed on all pages shall be delivered to the Central University of South Bihar, SH-7, Gaya Panchanpur Road, Post-Fatehpur, Post-Tekari, District-Gaya, Bihar, Pin- 824236 by Registered Post/ Speed Post to reach on or before 08/10/2020 by 4:00 PM. The technical Bids will be opened on 09/10/2020 at 2:30 PM at Central University of South Bihar, Gaya Campus in presence of the tenderers or their authorized representatives. The financial Bid of the agencies who qualify the technical bid evaluation process will be opened after prior information to successful bidder in Technical bid. Bidders to follow notices on University's website. The date of opening of the Financial Bids of those tenders fulfilling the requirements will be announced on a separate date. If the office happens to be closed on the date of receipt of the bids or Opening of bids as specified, the bids will be received and opened on the next day of opening of the office at the same time and venue.
- **4.** Central University of South Bihar, does not binds itself to accept the lowest rate and reserves the right to accept or reject all or any part of tender without assigning any reasons and claim on account of above shall not be entertained..
- **5.** The tenderer shall quote for the Services/material/Equipment to be supplied as per detailed specifications as given in the Tender document.
- 6. Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of the ground and sub-soil (so far as is practicable), the firm and nature of the site, the means of access to the site, and, in general, shall themselves obtain all necessary information as to risks, contingencies and other circumstances which influence or affect their tender. A tenderer shall be deemed to have full knowledge of the site, whether he inspects it or not, and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The tenderer shall be responsible for arranging and maintaining at its own cost all materials,

tools and plants, equipment etc. and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by tenderer 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 local conditions and other factors having a bearing on the execution of the work. Any damages done to the property of the Central University of South Bihar, or other persons shall be made good by the Tenderer at his own cost.

#### 7. ENVELOPE 'A' (Earnest Money & Tender cost )

The tender shall be accompanied by the cost of the tender document Rs. 500/- (Indian Rupees Five Hundred only) in Form of Demand Draft failing which the tender will not be accepted. Tender must also be accompanied by earnest money as mentioned above in the form of Demand Draft in favour of Central University of South Bihar, payable at Gaya issued by any Nationalized Bank. The Demand Draft towards Earnest Money & cost of tender document will be placed in Sealed Envelope 'A'.

#### 8. ENVELOPE 'B' (Technical bid Document)

- (i) This Envelope shall contain the Prequalification documents pertaining to financial eligibility and Physical completion of Work. Copy of Work Order/ Purchase Order with completion certificate is mandatory for similar works executed in past 3 financial year. on each page.
- (ii) The credential of tenderer to be included for those, who authorized by the manufacturers, suppliers of the material/equipment for execution of this work if applicable and including the list of similar work executed in India with location, cost of work and period during which those works are executed.

#### (iii) Checklist for envelope 'B':

- a. Copy of registration of GST No.
- b. Copy of Income Tax Permanent Account Number & Income Tax assessment order.
- c. Copy of Memorandum and Article of Association, Certificate of Incorporation, Partnership Deed, Registration Certificate issued by the Registrar of Firms etc
- d. Copy of Notarized power of attorney of authorization for participation in subject bid (Not required in case of Proprietorship firm)
- e. Copy of ESI Registration Certificate.
- f. Copy of EPF Registration Certificate Copy of Small Scale Unit/ MSME/ NSIC Registration under relevant items (If Registered).
- g. Copy of Work Order and successful completion certificate of meeting minimum eligibility criteria (Financial & Physical)
- h. All pages of Tender document including various sections and Annexures, except priced bid.
- i. Un-priced copy of Bill of Quantity with "Quoted" written in Rate Column of each items.
- j. Any product manual, credentials etc.
- k. Self-attested copies of License of workmen of different categories (Lineman 3 Nos, Wireman 1 No., Plumbers 3 Nos.)
- I. Detail list of technical staffs, their qualification and experience in execution of operation and maintenance of works under tender reference.
- m. Detail list of available infrastructure, machine & tools should be provided.

#### 9. ENVELOPE 'C' (Financial Bid Document)

- 9.1 The Envelop 'C' shall contain the tender documents and information related to the schedule of quantities quoting the rates per Unit/Price etc. of the various items or works pertaining to the financial bid on the financial bid document, issued by Central University of South Bihar, along with the tender document.
- 9.2 All columns shall be duly filled in with specific information on the cost involved.
- 9.3 The rates for the items shall be quoted in Indian Rupees.
- \*NOTE: The Tenderer should clearly mention in all the three envelopes (i.e. A, B and C) clear description of the items for which the offer is being quoted. If any discrepancy is observed the offer would be treated as non- responsive and would be rejected outright.
- Document), and Envelope-'C' (Financial Bid Document), shall be in separate sealed envelopes, each marked as "Envelope- 'A', Envelope-B and 'Envelope-C'. All the three envelopes shall be submitted in another sealed envelope super scribing there on "Annual Operation & Maintenance Contract of 1 No. 11/0.433 KV Load Sub-Station, 280 KLD STP, External Street Lighting, 3 Nos. D.G. Sets and Water Pump House round the clock" at Central University of South Bihar". The envelope should be addressed to Registrar, Central University of South, India. The envelope marked 'Envelop-B' of only those tenderers shall be opened, whose earnest money & tender cost are placed in the 'Envelop' A' and found to be in order.
- 11. The Tender Evaluation Committee will evaluate the Technical Bids and is fully authorized to reject any tender on its satisfaction that the requirements are not met for the complete needs of the Central University of South Bihar with regard to the Committee. The decision of the Tender Evaluation Committee shall be final. Only those tenders Technical Birds cleared by the Tender Evaluation Committee shall be eligible for their Price Bid to be opened. Those successful tenderers for whom the Envelop-C (Price Bid) is to be opened shall be duly intimated.

#### 12. <u>Clarification of tenders :</u>

12.1 During evaluation of tenders, the Registrar may at his discretion ask the tenderer a clarification of its tender. The request for clarification and the response shall be in writing. However, the tenderer is not permitted alter the price (s) furnished in the

Price Bid (Envelop-C). Any query related to bid may be sent to email id <a href="mailto:registrar@cub.ac.in">registrar@cub.ac.in</a> before the date of pre-bid meeting and clarification to the same shall be uploaded on University's website. Tenderers are requested to visit the University's website regularly.

- 12.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price (i.e. obtained by multiplying the unit price and quality), the unit price shall prevail and the total price shall be corrected. If the supplier does not accept the correction of errors, its tender will be rejected. If there is a discrepancy between words and figures, the amount in words will prevail.
- The amount of earnest money, in the case of successful tenderer, shall be refunded on successful completion of work. However E.M.D of unsuccessful tenderers will be refunded after the award of the contract to the successful tenderer.
- Ocentral University of South Bihar, does not bind itself to accept the lowest or any other tender, and reserves to itself the authority to reject any or all of the tenders receive without the assignment of any reason and to negotiate with the tenderers. All tenders in which any of the prescribed conditions are not fulfilled or are incomplete in any respect or there is any correction not duly dated, initiated by the tenderer are liable to be rejected. However, the final decision for accepting or rejecting any or all tenderers will be in the sole discretion of Vice Chancellor, Central University of South Bihar.
- Tender shall remain open for acceptance for a period of 60 days from the date of opening of the tenders. If any tenderer withdraws his tender before the said period or makes any modifications in the terms and conditions of the tender which are not acceptable to Central University of South Bihar. Then Central University of South Bihar, shall without any prejudice to any other right or remedy, be at liberty to forfeit full earnest money absolutely. The decision of Vice Chancellor, Central University of South Bihar in this behalf shall be final and binding on the tenderer.
- The notice Inviting tender shall form a part of the contract document. The successful tenderer shall sign the necessary contract documents consisting of the notice-inviting tender, all the documents including additional conditions, specifications and drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto, within the time specified in the letter communicating the acceptance of the tender. In case of delay the earnest money may be forfeited

and the tender cancelled or the contract enforced as per the terms of the tender and the invitation to tender and the tenderer shall thus be bound by the conditions of contract-even though the formal agreement has not been executed and signed within the specified time by the tenderer.

- 17. If the Headquarter of the successful tenderer is at a place other than Gaya, Bihar he/ they shall appoint a duly Authorized Representative in Gaya from the date of commencement of the work until the work is physically completed. Such Representative shall be authorized to act on behalf of the successful tenderer. Any noticed under the contract shall be deemed to have been served on the successful tenderer, if served upon such Representative or sent by registered letter at his address in Gaya. Such Representative shall not be changed and shall not leave place of work during the period of the contract without the prior approval of Registrar Central University South Bihar. If Vice Chancellor, Central University of South Bihar shall require the successful tenderer to carry out rectification of the defects under the terms of the contract after the work has been completed, the successful tenderer shall appoint the same or another duly Authorized Representative in Gaya while such rectifications are being carried out.
- **18.** The tenderer shall submit a detailed of deployment of workmen, job procedure plan along with list of tools, testing devices etc required for successful operation of work within 7 days of issuance of LOA.
- **19.** No additional conditions from the tenderer shall be acceptable. The tenders having any additional conditions will be summarily rejected without assigning any reason.
- **20.** The tenderer should meet the Financial & Physical work completion criteria to qualify in the subject tender.
- 21. Bidders are required to quote all items in the Bill of Quantity or Schedule of quantity. In event of non-compliance of above shall lead to disqualification in subject tender.
- 22. The tenderer is required to obtain all required statutory permissions for work by their own and shall be bound to do necessary liaison with Government Authorities as and when required

- 23. Bidders are informed to visit the existing buildings and utilities at Panchanpur, Gaya where proposed works to be executed and get themselves acquainted with ground realities before quoting the subject tender. Later stage no claims shall be entertained by CUSB on account of non-clarity of the above.
- 24. Drinking Water & Electricity shall be available at site for execution of work. Contractor should arrange sitting arrangement of the workmen in Substation Building by their own and also required Bicycles/ communication mode for routine discharge of duties.
- 25. All Civil, Mechanical, Plumbing work essential for successful completion of work etc are in the scope of the bidders and no additional payment shall be made towards any breakage, chipping, restoration, lift, lead, carriage, storage, loading, unloading, packaging etc.
- **26.** Any damaged caused to the facilities existing in the building to be made good by bidders after rectification at their own.

Signature of the Tenderer

Date:

#### CENTRAL UNIVERSTIY OF SOUTH BIHAR.

Tender Bid Document "Annual Operation & Maintenance Contract of 1 No. 11/0.433 KV Load Sub-Station, 280 KLD STP, 3 Nos. D.G. Sets, External Lighting and Water Pump House round the clock" at Central University of South Bihar, Panchanpur, Gaya (Bihar)

#### **General Rules and Conditions:**

- 1. All works proposed for execution by contract will be notified in a form of invitation of tender by Central University of South Bihar.. This form will state the works to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender. Copies of the specifications, design and drawings and a schedule of quantities and any other documents required in connection with the work shall also be open for inspection by the Tenderer at office of the Central University of South Bihar during office hours.
- 2. The tender submitted by the tender must be signed by the Company's/Firms/Institute's Executive or on his behalf by Authorized Signatory being a person holding the power of Attorney authorizing him to do so. Such Power of Attorney shall be submitted with the tender.
- 3. Any person who submits a tender shall fill up the schedule of quantities stating at what rate he/she is willing to undertake each item of the work. Tenderers, who propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort, will be liable to rejection.
- 4. A committee of Central University of South Bihar, will open the tenders in the presence of any intending Tenderers who may be present at the time, and will enter the details of the tenders in a comparative statement in a suitable form. In the event of a tender being accepted, the Tenderer shall for the purpose of identification sign copies of the specifications and other documents mentioned in Rule 1. In the event of a tender being rejected, the earnest money forwarded with such unaccepted tender shall thereupon be returned to the Tender remitting the same, without any interest.
- **5.** Rates quoted by the tenderer in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words.
- 6. All rates shall be quoted in the schedule of quantities. The amount for each item should be worked out and requisite totals given. Special care should be taken to write the rates in figures as well as in words and the amount in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. While quoting the rate in schedule of quantities, the word 'only' should be written closely following the amount and it should not be written in the next line.

- 7. On acceptance of the tender, the name with address and telephone numbers of the accredited representative(s) of the Tenderer who would be responsible for taking instructions, shall be communicated in writing to Central University of South Bihar.
- 8. The Financial quotations shall be inclusive of the taxes payable on material as applicable under State Sales Tax or any other tax in respect of this contract and shall be payable by the Tenderer only and Central University of South Bihar will not entertain any claim whatsoever in respect of the same.
- **9.** Provision and Rules mentioned in University Purchase Rules and Procedures (PRP) available on University's website shall be a part to the bidding document and unless and otherwise specified exclusively other terms shall be govern by the same.
- 10. Date of start of work shall be reckoned after 7 days from the issuance of LOA (Letter of Award). Tenderer shall ensure modification of manpower, resources essential and kept under scope of above tender within above period. Failing in start of work within above stipulated period shall attract penalty of Rs. 1000/- (One Thousand Only) per day subject to maximum of security deposit. Decision of University shall be final and abiding in this regard.
- **11.** All the labour laws should be strictly complied with by Tenderer. In case of any lapses or non-fulfillment of labour laws, the tenderer will be wholly responsible.
- **12.** For any penalty levied in non fulfilment of compliance of labour law in reference to the staffs/ workmen deployed or execution of Work or payment of compensation whatsoever, the tenderer will be solely responsible and the University will not be responsible for compensate in any manner.
- **13.** Tenderer shall submit the proforma as per annexure-I for technical staff details failing which tender shall be rejected during technical evaluation.

### **BASIC INFORMATION ABOUT THE TENDERER**

| 1.   | Name and full Address of Tenderer                         |    |
|------|---|----|
|      | Telephone No.   |    |
|      | E-mail-   |    |
|      | Fax:  |    |
| 2.   | Last 3 year Income Tax Assessment Certificate             |    |
| 3.   | Brand Name of the Product being offered                   | NA |
|      | The firm will submit its consent to adhere the Time       |    |
| 4.   | Schedule for execution of the Work as mentioned in the    |    |
|      | tender document.  |    |
| 5.   | Legal Status; Whether a proprietary or a partnership firm |    |
|      | of incorporated body etc. With proof of registration/     |    |
|      | certification by Government of parent country.            |    |
| 6.   | Authenticated copy of the following documents.            |    |
| (a)  | Certificate of incorporation. In case of an               |    |
| 4. \ | incorporated body.  |    |
| (b)  | Memorandum of Association                                 |    |
| (0)  | Certificate by Auditor confirming existence of assets     |    |
| (c)  | (unencumbered) of the value of 30% of the tendered        |    |
|      | amount.   |    |
| (d)  | Solvency Certificate from the Banker, if applicable       |    |
|      | (a) Name (a) and address (es) with Fax number of          |    |
| 7.   | customers along with the place and year the said work     |    |
|      | have been Executed.                                       |    |
|      | (b) Documentary proof of satisfactory supply and          |    |
|      | installation items during the past three and the present  |    |
|      | condition of the installed items.                         |    |
|      | The period for which the Service provider/supplier/       |    |
| 8.   | manufacturer has been manufacturing/ delivering           |    |
|      | services and is in the business of supplying/installing/  |    |
|      | providing services the items and Documentary proof        |    |
|      | thereof.  |    |

| 9.  | Any other documents/information, which parties,          |  |
|-----|--|--|
| J.  | may consider appropriate to the activity of tender       |  |
| 10. | Details of disputes/claims, if any, between the tenderer |  |
|     | and any Authority/ Body and its present status.          |  |

#### Note:

- 1. Separate information sheet may be provided for item (s) in case space provided is not adequate.
- 2. Affidavit in the enclosed format on Non Judicial stamp paper duly attested by Magistrate/Notary shall also be furnished by the bidder.

## **AFFIDAVIT**

(On Non-judicial stamp paper)

| Tend   | er Notice No.: CUSB/S&P/EE/Tender/ /2020-21, dated   |  |  |  |  |
|--|--|--|--|--|--|
| Na   | me of Work: Annual Operation & Maintenance Contract of 1 No. 11/0.433 KV                                 |  |  |  |  |
| Lo   | oad Sub-Station, 280 KLD STP, 3 Nos. D.G. Sets, External Lighting and Water                              |  |  |  |  |
| Pur  | Pump House round the clock" at Central University of South Bihar, Panchanpur,                            |  |  |  |  |
|  | Gaya, Bihar  |  |  |  |  |
| 1.   | I, the undersigned, do hereby certify that all the statements made in the required                       |  |  |  |  |
|  | Attachments are true and correct.  |  |  |  |  |
| 2.   | The undersigned also hereby certifies that neither our firm M/S  |  |  |  |  |
|  | have abandoned any work nor any contract   |  |  |  |  |
|  | Awarded to us for such works have been rescinded, during last three years prior to the date of this bid. |  |  |  |  |
| 3.   | The undersigned hereby authorize and request any bank, person, firm or Corporation to                    |  |  |  |  |
|  | furnish pertinent information deemed necessary and requested by the Central University                   |  |  |  |  |
|  | of South Bihar, to verify this statement or regarding my (our) competence and general                    |  |  |  |  |
|  | reputation.  |  |  |  |  |
| 4.   | The undersigned understand and agrees that further qualifying information may be                         |  |  |  |  |
|  | requested, and agrees to furnish any such information at the request of the Central                      |  |  |  |  |
|  | University of South Bihar.   |  |  |  |  |
| 5. The undersigned understand the terms of tender and hereby undertake to deploy |  |  |  |  |  |
|  | competent personals who have valid license to work under scope and also undertake to                     |  |  |  |  |
|  | comply with all Labour laws related to wages, PF, ESI & compensation etc. Fu                             |  |  |  |  |
|  | responsibility towards above compliance lies with us.  |  |  |  |  |
|  | (Signed by an Authorized Officer of the Firm)  |  |  |  |  |
|  | Title of Officer   |  |  |  |  |
|  | Name of Firm   |  |  |  |  |
|  | <br>Date   |  |  |  |  |

#### **CENTRAL UNIVERSITY OF SOUTH BIHAR**

Tender Bid document for "Annual Operation & Maintenance Contract of 1 No. 11/0.433 KV Load Sub-Station, 280 KLD STP, 3 Nos. D.G. Sets, External Lighting and Water Pump House round the clock" at Central University of South Bihar, Panchanpur, Gaya (Bihar)

I/We have read and examined the notice inviting tender, schedule of quantities, specification applicable, drawings and designs, general rules and directions, conditions of contract, clauses of contract, special conditions schedule of rates and other documents, and Rules referred to in the conditions of contract and all other contents in the tender documents for work.

I/We hereby for the execution, for Central University of South Bihar of the work specified in the underwritten memorandum within the time specified in such memorandum at the rated quoted in the schedule of quantities and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Rule-1 of General Rules and Directions and in clause of the conditions of contract and in all respects in accordance with such conditions.

#### **Memorandum:**

Name of work:- "Annual Operation & Maintenance Contract of 1 No. 11/0.433 KV Load Sub-Station, 280 KLD STP, 3 Nos. D.G. Sets, External Lighting and Water Pump House round the clock" at Central University of South Bihar, Panchanpur, Gaya (Bihar). Earnest Money Rs. 80,000/- (Rupees Eighty Thousand Only).

- (a) Time allowed for start of tender should be in line with S.No. 10. Of General Terms & Condition.
- (b) I/We agree to keep the tender open for one hundred and twenty days from the date of opening thereof and not to make any modification in its terms and conditions.
- (c) A sum of Rs. 80,000/- (Rupees Eighty Thousand Only) is hereby forwarded in the form of Demand Draft executed by Scheduled Bank in favour of Central University of South Bihar, as earnest money payable at Patna.
- (d) Should this tender be accepted, I/We hereby agree (i) to abide by and fulfill all the terms & conditions of the said conditions annexed hereto and all the terms and provisions contained in notice inviting tender, and in default thereof to forfeit and pay to Central University of South Bihar, the sum of money mentioned in the said conditions.

(e) If I/We fail to commence the work specified in the above memorandum I/We agree that Central University of South Bihar, Shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely to execute all the works referred to in the tender documents open the terms & conditions contained or referred to therein.

### **CENTRAL UNIVERSITY OF SOUTH BIHAR**

#### **INTERPRETATIONS & DEFINITIONS**

| 1.      | The  | e "Contract" means the documents forming the tender and acceptance thereof and the formal       |  |  |
|---------|--|---|--|--|
|         | agreement executed between the competent authority on behalf of Central University Of South              |   |  |  |
|         | Bihar and the supplier (hereinafter call the Tenderer or CUSB or Owner), together with the               |   |  |  |
|         | documents referred to therein including those conditions, the specifications, designs, drawings and      |   |  |  |
|         | instructions issued from time to time by Central University of South Bihar and all these documents       |   |  |  |
|         | taken together, shall be deemed to form one contract and shall be complementary to one another.          |   |  |  |
| 2.      | In 1   | the contract, the following expression shall, unless the context otherwise requires, have the   |  |  |
|         | me   | anings, hereby respectively assigned to them.   |  |  |
|         | i.   | The expression "Works", or "Work" shall, unless there be something either in the subject or     |  |  |
|         |  | context repugnant to such construction, be construed and taken -to mean the works by or by      |  |  |
|         |  | virtue of the contract contracted to be executed whether temporary or permanent, and whether    |  |  |
|         |  | original, altered, substituted or additional.   |  |  |
|         | ii.  | The "Site" shall mean the land other place on, into or through which work is to be executed     |  |  |
|         |  | under the contract or any adjacent land, path or street through which work is to be executed    |  |  |
|         | under the contract or any adjacent land, path or street which may be allowed to use for the              |   |  |  |
|         | purpose of carrying out the contract.  |   |  |  |
|         | iii.   | The "Tenderer" shall mean the successful tenderer / supplier/ vendor/ agency undertaking the    |  |  |
|         | works and shall include the legally authorized representatives or such individual or the persons         |   |  |  |
|         | comprising the supplier agency, or the successors of the supplier and the permitted assignees            |   |  |  |
|         | of the supplier agency or the successors of the agency having possession of the property or              |   |  |  |
|         |  | holding in the event of the firm is liquidated before completion of work.                       |  |  |
|         | iv.  | "Tendered Value" means the value of the entire work as stipulated in the letter of award.       |  |  |
|         | ٧.   | "Equipment" means all machinery, apparatus and articles to be provided under the contract by    |  |  |
|         |  | the Tenderer.   |  |  |
|         | vi.  | The " place of supply and installation " shall mean the Central University of South Bihar at    |  |  |
|         |  | Panchanpur, Gaya (Bihar)  |  |  |
| 3.      |  | ere the context so requires, words imparting the singular only also include the plural and vice |  |  |
|         | versa. Any masculine gender shall whenever required include feminine gender and vice versa.              |   |  |  |
| 4.      | Headings and marginal notes to the conditions of the contract shall not be deemed to form part           |   |  |  |
| <u></u> | thereof or be taken into consideration in the interpretation or construction thereof or of the contract. |   |  |  |
| 5.      | The Tenderer/supplier/ bidder/ vendor/ agency shall be furnished, free of cost one certified copy of     |   |  |  |
|         | the contract documents except standard specifications, schedule of rates and such other printed          |   |  |  |
|         | and published documents, together with all drawings as may be forming part of the tender papers.         |   |  |  |
|         | None of these documents shall be used for any purpose other than that of this contract.                  |   |  |  |
|         | INOI   | le of these documents shall be used for any purpose other than that of this contract.           |  |  |

## **CLAUSES OF CONTRACT**

#### Clause: 1 Works to be carried out:

The work to be carried out under the contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.

#### Clause: 2 Sufficiency of Tender:

The Tenderer shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of this tender for the works and of the rates and prices quoted in the Schedule of Quantity (Bill of Quantity), which rates and prices shall except as otherwise provided/cover all his obligations under the contract and all matters and things necessary for the proper completion and maintenance of the works.

#### Clause: 3 <u>Time for Performances</u>:

- 3.1 Contractual completion time is considered as 1 year from the date of start. However, based on performance of the vendor, the subject control may be extended for another one year after revising labour wages as per prevailing notification. No charge in service charge shall be made in extending contract after original contractual period.
- 3.2 Notwithstanding anything herein contained, the parties hereto acknowledge and agree that the time is the essence of the contract in all respects for their respective performance and discharge of obligations under this contract and the parties shall adhere to the time/delivery schedule as provided in Appendix-II of the contract unless otherwise mutually agreed to by the parties in writing.

#### Clause: 4 Registrar, CENTRAL UNIVERSITY OF SOUTH BIHAR shall:

4.1 Being a party of this Contract, sign the agreement within seven days of issue of Acceptance Letter.

- 4.2 Hand-over the site to the Tenderer within two days of signing of the agreement and or issuance of LOA.
- 4.3 Allow the commencement of work by the tender immediately after issuance of LOA.
- 4.4 Date of start of work shall be considered as 7 days after issuance of LOA. The above period shall be considered as mobilization period by vendor.

#### **Clause: 5 Performance Guarantee:**

- 5.1 The contractor shall submit an irrevocable PERFORMANCE BANK GUARANTEE of 10% (Ten percent) of the tendered amount calculated in term, in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and without prejudice to any other provision in the contract) within 15 days of issue of letter of intent. This period can be further extended by the Vice Chancellor upto a maximum period of 7 days on written request of the contractor stating the reason for delays in procuring the Bank Guarantee, to the satisfaction. This Performance Bank Guarantee will remain valid & deposited with Central University of South Bihar till the contract period plus sixty days of the work is over. This guarantee shall be in the form of Government Security or fixed deposit receipts/Guarantee Bonds issued by National Bank, in accordance with and as per prescribed format. In case a fixed deposit receipt of any Bank is furnished by the contractor to the as part of the Performance Bank Guarantee and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Central University of South Bihar, to make good the deficit.
- 5.2 A letter of intent shall be issued in the first instance informing the successful tenderer of the decision of the competent authority to accept his tender and the award letter shall be issued only after the Performance Bank Guarantee in the prescribed form is received. In case of failure by the contractor to furnish the Performance Bank Guarantee within the specified period, the Central University of South Bihar, shall without prejudice to any right or remedy available in law, be at liberty to forfeit the earnest money absolutely.
- 5.3 The Performance Bank Guarantee should be as per s.no 5.1. In case the time for contract period gets enlarged, the contractor shall get the validity of Performance Bank Guarantee extended to cover such enlarged time for contract period. After recording of

the work completion certificate for by the competent authority, the Performance Bank Guarantee shall be returned to the contractor without any interest.

- 5.4 The Central University of South Bihar shall not make a claim under the Performance Bank Guarantee except for amounts to which the Central University of South Bihar is entitled under the contract (not withstanding and without prejudice to any other provisions in the contract agreement) in the event of :-
  - (a) Failure by the contractor to extend the validity of the Performance Bank Guarantee as described herein above, in which event the Central University of South Bihar, may claim the full amount of the Performance Bank Guarantee.
  - (b) Failure by the contractor to pay the Central University of South Bihar, any amount due, either as agreed by the contractor or determined under any of the Clauses/Condition of the agreement, within 30 days of the service of notice to this effect by the Central University of South Bihar.
- 5.5 In the event of the contract being determined or rescinded under provision of any of the clause/condition of the agreement, the Performance Bank Guarantee shall stand forfeited in full and shall be absolutely at the disposal of the Central University of South Bihar.

## Clause: 6 Work to be executed in accordance with specifications as quoted in the tender

- 6.1 The tenderer shall execute the whole and every part of work in the most substantial and workman like manner both as regards materials and otherwise in every respect in strict accordance with approved specifications.
- 6.2 All work shall be under the directions of Registrar, Central University of South Bihar or Officer In-charge, Central University of South Bihar who shall oversee /supervise and approve the work at various stages.
- 6.3 The Tenderer when requiring to engage any local contractor for construction/repair work must engage a reputed registered contractor having experience of carrying out of work of similar nature and quantity in the past. Such contractor's particulars with registration number and list of machinery available with the Contractor must be given to the CENTRAL UNIVERSITY OF SOUTH BIHAR before execution of the work.

## Clause: 7 <u>Discrepancies and Adjustment of Errors : The several documents forming the contract are to be taken as mutually explanatory to one another.</u>

- **7.1** In the case of discrepancy on any specification, the following order of preference shall be observed:
  - i. Description of Schedule of Quantities/ Bill of Quantity.
  - ii. Technical Specifications.
  - iii. Scope of work & Special Condition, if any.
  - iv. Manufacturer's Specification and operating manual of equipment.
  - vii. Drawings
  - viii. Sound Engineering practices in the industry.
  - ix. Central Electricity act's provisions.
  - x. Any prevailing State Government Guideline.
- 7.2 If there are varying or conflicting provisions made in any one document forming part of the contract, the Vice Chancellor, Central University of South Bihar, shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the Tenderer.
- 7.3 Any error in description, quantity or rate in Schedule of Quantities/ Bill of Quantity or any omission there from shall not vitiate the contract or release the Tenderer from the execution of the whole or any part of the works comprised therein according to the Supply, fixing, testing & commissioning specifications or from any of his obligations under contract.
- 7.4 If there is any omission in furnishing the rate for any of the items, it will be construed that the rate for that item has been distributed among the other items of the tender. Therefore, the Tenderer is liable to execute that particular item of work at free of cost.
- **7.5** Any deviation unavoidable during execution of work shall attract suitable price adjustment and consent of the tenderer/ vendor shall not be essential.

#### Clause: 8 <u>Materials, Equipment, Tools & Plant</u>:

8.1 The Tenderer shall arrange all materials, labour, machinery, equipment, tools and plant, protective clothing, crane, truck, dumper, office equipment (hereinafter collectively referred to as 'materials & equipment') and such other materials and equipment as is necessary for efficient and timely execution of Supply and Installation. The Central University of South Bihar shall in no way be responsible to any accidents or injury caused during the execution of the work. The instruments like insulation tester, earth tester, earthing rods, multi-meters, clamp-meters, testing kits, thermometer etc. shall be

required at site during day to day operation activities. The contractor shall be fully responsible for arranging the supply of regularly required tools & tackles, cable crimping tools, ladders etc. In addition to above, the personal protective equipments (PPE) like helmets, safety belts, hand gloves, safety shoes, torch etc. for all working persons shall also be arranged.

#### Clause: 9 Price:

9.1 Rates: The rates tendered by the Tenderer shall be for completed items of covering all materials, labour, carriage, maintenance, consumables, royalties, fees, rents, CIF at site by Sea/Air freight, octroi, levies, insurance charges license fees, renewal fees and demurrage, wastage, tools, plant, equipment, transport, temporary construction, overhead charges and profits as well as general liabilities, obligations and risks etc. arising out of the conditions of the contract etc complete. GST if applicable shall be paid extra as per prevailing rate on production of invoices. Tenderers are requested to quote their price for all items mentioned in Schedule of Quantity (SOQ). Partial quote shall be summarily rejected and no claim shall be entertained even if tenderer stands L1 in part items of Schedule of Quantity (SOQ).

The prices will also include cost of incidental expenses, liaison fee and other out of pocket expenses essential for routine and periodic inspection by Governmental officials as per mandatory guidelines and frequency defined. However, any payment towards fees paid to any Governmental offices on account of inspection, testing shall be reimbursed by University to vendor on production of proof of payment made to the Government bodies. No extra charges, whatsoever, consequent on any misunderstanding or otherwise shall be allowed.

- **9.2** The prices shall also be inclusive of all expenses, taxes except GST, levies, insurance cost of safety equipment, testing equipments etc and demurrage and any other fees and expenses etc.
- **9.3** Unless and otherwise specified, the price will remain firm during the entire period of contract till the completion of the work in all respects and there will not be any escalation in the tendered value due to any reason whatsoever.

#### Clause: 10 Quality Control:

**10.1** Vendor shall ensure quality control parameters essential as per the Central Electrical Act

& State Government's Acts in context to scope of work corrected up to latest slip, prevailing State Government's directives and changes/ revision to the same time to time without any additional cost.

#### Clause: 11 Payment Terms:

- 11.1.1 100 % payment against item as per SOQ/ BOQ shall be released on monthly basis after certification of running account bill followed by statutory deduction like TDS etc.
- 11.1.2 In case, it comes to notice at any stage that work being done is defective or the workmanship is defective or any defects develop during the Currency of contract, the Central University of South Bihar shall be entitled to withhold the Security Deposit without prejudice to other contractual resource.
- 11.1.3 The Bidder shall also submit the following monthly records to the Central University of South Bihar along with Running Account Bills:
  - a. Following month's duty roaster.
  - b. Actual duty roaster for the preceding month with approval of CUSB representative.
  - c. Spares and consumables available with the contractor and spares and consumables required for next month operation/maintenance, if any.
  - d. Materials consumed in the preceding month, if any.
  - e. No. of faults occurred during the previous month & its action taken report along with Safety observations, if any.
  - f. Information for refilling of the used/ outdated fire extinguishers, top up of transformer oil, etc.
  - g. Any other documents/ records as desired by University.
  - h. Wage sheet of preceding month along with PF and ESI Challans for the workmen deployed in the Work.

#### Clause: 12 Warranty of the equipment : N.A

#### Clause - 13 Breach of Contract

13.1 The Central University of South Bihar while executing a contract with the Supplier/work agency/ vendor shall have the full right to see that the terms & conditions, specifications, quality, workmanship of the works assigned to the Supplier Agency or the party to the

contract is fully complied and are satisfactory/ acceptable before payments are released.

13.2 If at any stage it is seen that the quality of material being used or service being provided is below the standard accepted/ specified in the agreement or any deviation from the approved specification of the product or the laid down norms are not being followed/ there is contravention to the terms and conditions of agreement, the same will be considered as breach of contract and in such case, the Central University of South Bihar will have full right to stop further payment even if due, until and unless the discrepancies/ objections are set right or replaced/ clarified by the Supplier/ Service Agency to the entire satisfaction of the Central University of South Bihar. Failing to comply with the above, the Central University of South Bihar would initiate legal action as deemed fit within the jurisdiction of Patna Courts.

#### Clause 14: Force Majeure

- 14.1 The term "Force Majeure" shall mean acts of God or any act not within the control of parties, such as lightening and unprecedented floods, earthquake, hurricane and wars, revolts, riots, fire, sabotage. Upon the occurrence of such cause and upon its termination, the party, alleging that it has been rendered unable, as aforesaid, shall notify the other party in writing immediately but not later than seven days of the alleged beginning as well as ending thereof, giving full particulars and satisfactory evidence in support of its claim.
- 14.2 In the event of either party being rendered unable by force majeure to perform any duty or discharge any responsibility arising out of the contract, the relative obligation of the party affected by such force majeure shall upon notification to the other party be suspended for the period during which force majeure event lasts. The cost and loss sustained by either party shall be borne by respective parties.
- **14.3** The time for performance of the relative obligation suspended by the force majeure shall stand extended by the period for which such cause lasts.
- **14.4** Should the delay caused by force majeure exceed two months, the parties to the contract shall hold discussions to resolve the situation mutually.

#### Clause 15: Liquidated Damages

15.1 The Central University of South Bihar and the Tenderer recognize that "time is the essence of contract" and the Central University of South Bihar will suffer financial loss and other damages including loss of face and reputation of the country, if the work is not started within the stipulated date of start. They also recognize the delay, expense and difficulties involved in proving in legal or arbitration proceedings the actual loss suffered

by the Central University of South Bihar if the work is not completed within the stipulated time; accordingly, instead of requiring any such proof the Central University of South Bihar and the Tenderer agree that as liquidated damages for delay (but not as a penalty) the Tenderer shall pay the Central University of Bihar Rs. 1000/- per day or part thereof subject to maximum of security deposit that expires after the stipulated date of start until the work is started, unless such delay is due to Force Majeure as defined in the contract or due to the Central University of South Bihar default. The total incidence of liquidated damages for the entire work covered under the Contract shall, however, not exceed a sum of ten Percent of the tendered value.

- 15.2 The parties agree that the figures of liquidated damages indicated here above are genuine pre-estimates of the loss/damage which the Central University of South Bihar, Gaya would have suffered on account of delay/breach on the part of the Tenderer and the said amount will be payable on demand without there being any proof of the actual loss or damages caused by such delay/breach. All sums payable by way of liquidated damages shall be considered as reasonable compensation without reference to the actual loss or damage which shall have been sustained.
- 15.3 The decision of the Central University of South Bihar in the matter of applicability of the clause of liquidated damages shall be final and binding on the Tenderer.
- 15.4 The Central University of South Bihar may without prejudice to any other method of recovery of such liquidated damages, deduct the amount so payable by the Tenderer, from any amount due or falling due to the Tenderer. The payment of deduction of such amounts shall not relieve the Tenderer from his obligations to complete the work or from any other obligations and liabilities of the Tenderer under the contract.
- 15.5 If the Tenderer fails to execute the work with due diligence and within the prescribed time schedule or refuses or neglects to comply with reasonable orders given to him, in writing by the Central University of South Bihar in connection with the work or contravenes the provision of the contract, the Central University of South Bihar may give notice in writing to the Tenderer to make good such failure, neglect or contravention. Should the Tenderer fail to comply with the notice within three days from the date of service thereof, the Central University of South Bihar shall be at liberty to employ other workmen and forthwith execute such part (s) of work as the Tenderer may have neglected to or if the Central University of South Bihar shall think fit, it shall be lawful for him, without prejudice to any other right, it may have under the contract, to take the work wholly or in part out of Tenderer's hands and re-contract and complete the same or any part thereof to the

Tenderer's account and in that event the Central University of South Bihar shall have free use of Tenderer's equipment that may have been at the time on site in connection with the work without being responsible to the Tenderer for reasonable wear & tear thereof and to the exclusion of any right of the Tenderer over the same, and the Central University of South Bihar shall be entitled to retain and apply any amount due to the Tenderer or such part thereof as may be necessary, to the payment of the cost of executing the said part of the work or of completing the work or executing a part thereof as aforesaid exceeds the balance amount (s) due to the Tenderer, the Tenderer shall pay such excess. Such payment of excess amount shall be independent of the liquidated damages for delay, which the Tenderer shall have to pay if the completion of work is delayed.

15.6 In addition, such action by the Central University of South Bihar as aforesaid shall not relieve the Tenderer of his liability to pay liquidated damages for the delays in start of work.

#### Clause 16: Dispute Redressal System:-

- 16.1 In case of any dispute the matter will be referred to Vice Chancellor and his decision will be final.
- 16.2 Either party, not satisfied with the decision of the Vice Chancellor, may opt for Arbitration under Arbitration & Reconciliation Act 1996. Appointment of sole Arbitrator will be done by Vice Chancellor on the request of the aggrieved party with in sixty days from the date of request. Arbitrator will be of the rank of serving/retired Chief Engineer/Superintending Engineer.
- 16.3 The supplier will deposit charge @ 7.5 % of the claim with the University & the same will be released only after the settlement of dispute.
- 16.4 Expenses on account of arbitration will be shared equality by both parties which there exists any condition in writing.

#### Clause 17: <u>Jurisdiction and applicable law</u>

Indian Laws will govern this contract and any application in respect of any proceedings under this contract will be to the jurisdiction of the courts of Gaya, Bihar only and also for any application to entertain any suit in connection with this contract. Provided that nothing herein contained shall operate to the prejudice of any rights/recourses of the Central University of South Bihar regarding blacklisting.

#### Clause 18: Cancellations of contract Notwithstanding anything herein contained :

- 18.1 The Central University of South Bihar shall have the right to cancel the contract and be entitled to the restitution of all moneys paid by the Central University of South Bihar to the Tenderer under this contract alongwith interest at 18% per annum and the damages as assessed by the Central University of South Bihar in its sole discretion in case the Tenderer fails to perform the obligations strictly within the time stipulated herein or otherwise fails to discharge the duties and obligations undertaken by the Tenderer. The Supply and Installation can be got completed at the risk and cost of the Tenderer and the delivered materials or part thereof may be utilized subject to cost adjustment for the same as determined by the Central University of South Bihar.
- 18.2 Provided that in case of any failure or delay on the part of the parties as aforesaid arising out of the force majeure such other party shall not be entitled to rescind or revoke this contract.
- 18.3 The Central University of South Bihar reserves the right to cancel the contract in the event of omission/misrepresentation of any material fact.

## Clause 19: <u>Tenderer to indemnify the CENTRAL UNIVERSITY OF SOUTH BIHAR,</u> <u>Panchanpur, Gaya against Patent Rights</u>

The Tenderer shall fully indemnify and keep indemnified the Central University of South Bihar against any action, claim or proceedings relating to infringement or use of any patent design or any alleged patent or design rights and shall pay any royalties, which may be payable in respect of any article or part thereof included in the contract. In event of any claims made under or action brought against the Central University of South Bihar in respect of any such matters as aforesaid, the Tenderer shall be notified thereof and the Tenderer shall be at liberty', at his own expenses, to settle any dispute or to conduct any litigation that may arise therefrom; provided that the Tenderer shall not be liable to indemnify the Central University of South Bihar if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Central University of South Bihar in this behalf.

#### Clause 20:

The Tenderer shall be sole and Principal Employer of all labour employed on the work and shall comply with all the Indian Labour Laws as well as other laws, bylaws, orders and instructions issued by any competent authority in this behalf. The Tenderer shall be liable for all payments under any law including labour laws as also any compensation required to be paid on account of any injury, accident or mishap. Vendor

shall ensure insurance of their workmen deployed in work as per prevailing guidelines of Government cost towards which is deemed to be included in quoted rates.

#### Clause 21:

The contract comes into force on the date of signing by the authorized representatives of both parties.

#### Clause 22:

The use of proper fabrication, erection, testing & commissioning devices and equipment's should be made. All persons involved in fabrication, erection, testing & commissioning must be insured. All safety measures to protect life and assets in form of Personal Protective Equipment to be ensured while executing work. No unauthorized persons should be allowed to be present at the place of Work.

#### Clause 23:

Any accident caused because of any activities performed by bidder at any point of time shall be the total responsibility of the bidder and University shall not be responsible for any claim etc.

#### Clause 24:

All copies of licenses of workmen and vendor duly notarized in original copy should be summated by the bidder to the Registrar/ Officer In-charge, CUSB after issuance of LOA and photo copy along with technical bid of tender.

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## **Agreement**

| This agreem        | ent made on this Between the Registrar,                                    |
|--------------------|--|
| Central University | ersity of South Bihar, (hereinafter referred to as the Registrar, which    |
| expression sh      | nall unless otherwise excluded by or repugnant to the context be deemed to |
| include its su     | ccessors, representatives and permitted assignees) of the one part and the |
|                    |  |
|                    |  |
|                    | , the Tenderer (which expression shall unless                              |
| otherwise exc      | cluded by or repugnant to the context be deemed to include its successors, |
| representative     | e and permitted assignees) of the other part.                              |
| Where              | eas, pursuant to the offer of the Tenderer, the Tenderer has agreed to     |
| undertake the      | e following works:   |
| Tender for "       | Annual Operation & Maintenance Contract of 1 No. 11/0.433 KV Load          |
| Sub-Stations       | s, 280 KLD STP, External Lighting, 3 Nos. D.G. Sets and Water Pump         |
| House" " at 0      | Central University of South Bihar, Panchanpur, Gaya (Bihar) for a tendered |
| value of Rs.       | as per   |
| the terms an       | d conditions of the work award Letter No dated                             |
|                    | And terms & conditions annexed hereto.                                     |
|                    |  |
| The                | following documents will also form part of the Agreement                   |
| SI. No             | b. List of Documents   |
| 1.                 | Offer Letter No dated  |
| 2.                 | Work Award Letter No dated   |
| 3.                 | Time Schedule of work.   |
| 4.                 | Schedule of quantity/ Bill of Quantity.                                    |
| 5.                 | Terms & Conditions of Tender Document.                                     |
| 6.                 | Purchase rules & regulation of University available on website             |

In witness whereof, the parties have hereunto set and subscribed their handed seals on the day and the year first above written.

For and behalf of Central University of South Bihar

For and behalf of Central University of South Bihar

| For and behalf of Tenderer | Registrar<br>Central University of South Bihar |
|----------------------------|--|
| Witness:                   | Witness:                                       |
| 1.                         | 1.   |
| 2.                         | 2.   |

Tender No.: CUSB/PSD/EE/Tender/07/2020-21, dated 17/09/2020

Name of Work: Annual Operation & Maintenance Contract of 1 No. 11/0.433 KV Load Sub-Station, 280 KLD STP, 3 Nos. D.G. Sets, External Lighting and Water Pump House round the clock at Central University of South Bihar, Panchanpur, Gaya, Bihar

### **Scope of Work**

The scope of work includes the annual operation & maintenance(In all days of a year including University/Govt. Holidays) of one 11/0.433 KV Load Sub-Station complete with HT/LT panel's switch gears, APFC panel(Capacitor Panel) O&M of 2 Nos. Diesel Generator Sets of 625 KVA and one no 320 KVA Diesel Generator Set, 280 KLD STP, Water Pump House, maintenance of HT Underground cable from 33/11 KV Substation to 11/0.433 KV Substation, LT Underground Cabling network along with in route various feeder pillar up-to various load centers of entire campus, Day to Day electrical installation maintenance of Electrical Distribution Panels, pump staters of various pump and motors, lumaniries of Street Light/Substation/Water Pump House and luminaries of Volley ball/Basket ball Court at Central University of South Bihar, Panchanpur, Gaya, Bihar.

Providing temporary power supply to seminars, conference and various function, Energy meter reading at SBPDCL HT meter and preparation of energy bill. Some of details of electrical installations listed in Annexure-II.

The scope of preventive maintenance in general is given below for merely guidance. Any other work necessary for the proper maintenance of the system as per good engineering practices will have to done by the agency in consultation with the Engineer-in-Charge CUSB, so as to keep the system in a trouble free operational condition.

Break down & preventive shall be carried out by the agency with their own tools & plants and labors. No materials shall include in the scope of work. The breakdown maintenance shall be attended at the highest priority so as to make good the faulted system without a long delay.

For breakdown maintenance, the contractor shall coordinate/liaison with original equipment manufacturer(OEM) for replacement of parts and service as necessary. Infrastructure, tools & tackles ad the site support shall be provided by the contractor for such jobs with without unnecessary delays.

OEM services, if any required for the completion of breakdown services shall be arranged by contractor at their own cost. OEM parts will also be paid by contractor except 2 Nos Transformers, 11 KV VCB Panel, 3 Nos DG sets.

During the preventive (routine) maintenance, the contractor shall carry out the preventive maintenance as per maintenance manual of equipments. Some guidance details are listed hereunder for various system componenets.

#### **Section A**

#### 1. Transformers

#### Hourly:

- a) Checking of oil & winding temperatures, check for abnormalities & recording them.
- b) Observe & record Current in amperes, Voltage in Volts and frequency in Hz.
- c) Visual check for overheating, if any and observation for any unusual internal noise.

#### Daily:

- a) Observation of oil levels in
  - Conservator tank, if required top up with the tested transformer oil.
  - ii) Examine for oil leaks if any from the transformer.
- b) Checking the color of silica gel in the breather & also oil level of the oil seal. If silica gel color changes from blue to pink by 50%, the silica gel is to be reconditioned or replaced.
- c) Visual check of PRV.

#### Monthly:

- a) Physical examination of PRV.
- b) Cleaning of bushings, inspect for any cracks or chippings of tightness of primary and secondary side terminations.
- c) Measurement of IR values of transformer with suitable megger. Recording of the values specifying the temperature and tap position at which measurement are taken.
- d) Cleaning of Silica Gel breather.
- e) Checking of alarms setting of oil & winding temperature.
- f) Cleaning of dust deposition from windings.

#### Quarterly:

- a) Testing of BDV and moisture content of transformer oil.
- b) Testing of Bucholz relays operation.
- c) Checking of all connections on the transformer for tightness such as bushings, tank earth connection.

#### Yearly:

- a) Testing of transformer oil for dissolved gas analysis
- b) Tan delta testing for Bushings.
- c) Calibration & testing of oil & winding temperature indicators.
- d) Measurement of magnetizing current at normal tap and extreme taps.
- e) Measurement of winding resistance.
- f) Turns ratio test at all taps.

- g) Overhaul of tap changer and mechanism, if required.
- h) Calibration of tap position indicator.
- i) Filtration of oil or replacement of oil in the main tank when the BDV of the oil is found less than the acceptable limit.
- j) Changing the gaskets at all locations as and when leakage is found or the gasket is damaged or else yearly.
- k) Replacing of Buchholz relay, OTI, WTI if found malfunctioning
- I) Replacement of bushing if required.

#### 2. Circuit Breakers:

#### Monthly:

- a) Air cleaning with blower.
- b) Cleaning of circuit breaker body and bushings.
- c) Auxiliary contacts cleaning and tightness checking.
- d) Tightening of nuts and bolts.
- e) Checking breaker Operation (Local/Remote operation).
- f) Check of motor control
- g) Checking and sealing of cable entry holes

#### Quarterly:

- a) Oiling and greasing of all moving parts.
- b) Functional check of trip circuit.

#### Half-Yearly:

- a) Checking ON/OFF Timings of Circuit breaker poles.
- b) Complete servicing, lubricating and greasing of all moving parts. Replacement of any defective part.
- c) Measurement of contact resistance and contact gap.
- d) Operation of control and Auxiliary circuits.
- e) Recharge time of operating mechanism after specified sequence.
- f) Checks on specific operations.
- g) Inspection and operation of control circuit

#### Yearly:

- a) Touch up painting wherever required.
- b) Checking contact resistance of Breaker main contacts.
- c) Checking of circuit breaker position level by using sprit level indicator.
- d) Mechanism checking and lubrication to all moving parts.
- e) IR values of Power and Control Circuits.
- f) Operating circuits power consumption during operations.
- g) Verification of correct rated operating sequence.
- h) Checking Interlocking mechanism.

#### 3. Sub-station

- a) Checking the yard at periodic intervals and attend to any unusual observations, defects, sparks, loose contacts, red hot spots and loose bolts and nuts etc.
- b) Checking the earth resistance of earthing (monthly).

- c) Checking of operation and interlock of all equipments (monthly).
- d) The premises should be kept neat and clean

#### 4. Control & Relay Panels

#### Daily:

- a) Check for any tripping, chattering in the electrical parts, abnormal noise, overheating in the panels.
- b) Check whether indication lamps, annunciator lights, bell, buzzers and hooter are working.
- c) Check all terminal cubicles for healthy contacts, minor repairs/services/cleaning etc.
- d) Observe the annunciation window, and there is any alarm then consults the concerned authority.
- e) Check panel for proper closing.
- f) Cleaning of relay cases of dirt etc.
- g) Cleaning the panels, relay covers, blowing dust from inner side of panels.
- h) Voltage of DC supply.
- i) Physical checks of all wiring & connections.

#### Monthly:

- a) Check for the proper working of all ammeters, voltmeters, relays, aux contactors malfunction etc.
- b) Clean the panels from inside with the help of the blower/ vacuum cleaners.
- Check all the cables for overheating, tightness of the glands, lugs & crimping.
- d) Check the fuse-link & fuse holders.
- e) Check the control wiring of the panel along with the controls for the proper functioning and tripping at the preset parameters.
- f) Tightening of all earthing connections.

#### Quarterly:

Check operation of relays.

#### Yearly:

Testing and calibration of relays.

#### 5. LT Panel:

#### Daily:

a) Visual inspection of entire panel in regards to switch gear position

,heating, overload, abnormal sound, cleanliness.

- b) Check whether indication lamps, selector switch, TNC, & all meters are working.
- c) Checking and ensuring the closing of all the panel doors etc.,
- d) Check whether all relays are functioning properly

#### Monthly:

- a) Visual inspection of panels.
- b) Checking and sealing of cable entry holes.
- c) Checking of all switchgears termination.
- d) Checking/replacement of fuses if required.
- e) Checking of Bus bar connection, Tightening of nut bolts, cleaning of bus bar if, required.
- f) Tightening of all earthing connections.
- g) Cleaning of the inside and outside panels using blowers and Vacuum cleaner.
- h) Checking of relay operation and setting, interlocks etc.

### Yearly:

- a) Cleaning of circuit breakers, servicing and overhauling as per operation & maintenance manual of manufacturer.
- b) Checking of alignment in racking mechanism of breakers for free and smooth movement of circuit breakers
- c) Checking of contact wearing of circuit breakers
- d) Checking of mechanical/ electrical interlocks, interlocks within the Panel
- e) Functional operations check of limit switches, auxiliary contacts Etc.,
- f) Visual inspection of earth connections and checking of tightness
- g) Measurement of insulation resistance value of circuit breakers
- h) Measurement of contact resistance of circuit breaker poles
- i) Measurement of circuit breaker closing and tripping time
- j) Functional operations check of circuit breaker
- k) Measurement and recording of IR values for Main Bus bar.
- I) Checking of all terminations for tightness.
- m) Checking of CT, PT and Relays connections for tightness.
- n) Testing of all panel Relays & Meters, CT & PT.

#### 6. EARTHING SYSTEM

#### Daily:

Watering and proper closing of earth pit chamber

#### Quarterly:

a) Checking of all earthing connections, joints and cleaning and tightening thereof.

- b) Checking and recording of earth resistance of all points, pits and taking corrective action to improve it, if required.
- c) Identification marking and updating the details of the indication board

#### 7. DG Gen Sets

#### Daily:

- a) Taking and record the Specific gravity, water level and voltage of batteries.
- b) Cleaning of battery terminal, if required
- c) Test Run of DG sets at least for 10 minutes in day in winter/rainy season
- d) Checking of oil level in tank
- e) Physical inspection of DG set & AMF panel
- f) Check Lub oil level in the DG set.
- g) Record Running hours of the DG set and get verified with CUSB Officials Monthly:

Cleaning of strainers in the fuel line.

- a) Recommended servicing as per manufactures' instructions A"/B"/ C".
- b) Watering of earth pits.

#### Half Yearly/Yearly:

- a) Safety checks of the DG sets.
- b) Operation of all the relays.
- c) Checking of electrical panels
- d) Checking & cleaning of contacts of ACB, relays etc.
- e) Checking of safety interlocks.
- f) Checking of insulation resistance.
- g) Checking of earth resistance.
- h) Cleaning of cooling tower.
- i) Tighten the blades of cooling tower.
- j) Change the battery, if required.
- k) Servicing of 2 Nos of 625 KVA DG Gen Set & One no of 320 KVA DG gen set. It includes Filter change, lubricating oil, resister corrosion, element Air Cleaner, inhibitor, coolant refill, etc as per the OEM A,B,C checks (Make-Cummins)

#### 8. **STP**

#### Daily

- a) Keep air mixing on at all times
- b) Ensure that the air flow/ mixing is uniform over the entire floor of the tank. Adjust the placement of diffusers and the air-flow rate as needed.
- Keep the equalization tank nearly empty before the expected peak load hours (otherwise it will overflow)
- d) Check and clean clogged diffusers at regular intervals

- e) Manually evacuate settled muck/ sediments at least once in a year.
- f) Alum & Bleaching powder charging. All consumables will be purchased by the vendor only.

# 9. Water Pump House

| 10 HP & 6 HP Submersibl e pump set for borewell     | KSB      |  | Nos  | 2    | Carry out preventive<br>maintenance as per<br>the check – list,<br>Equipment manuals  | Half Yearly or<br>Yearly as<br>required. |
|---|----------|--|------|------|---|--|
| -DO-  | -DO-     | -DO-   | -DO- | -DO- | Earth resistance<br>should be measured<br>for earth pits of pump<br>house and watering<br>the earth pits and<br>submit report for the<br>same | Half Yearly or<br>Yearly as<br>required  |
| -DO-  | -DO-     | -DO-   | -DO- | -DO- | Periodical checking<br>and cleaning of all<br>pumps, motors and<br>control panels   | Half Yearly or<br>Yearly as<br>required  |
| Hydro<br>pneumatic<br>Pump for<br>Domestic<br>water | Grundfos | with VFD system/Mic roprocesso r Based System with three pump(2W+ 1S), Per pump flow 300 LPM, Head 90 Mtr. | Nos  | 3    | Carry out preventive<br>maintenance as per<br>the check – list, OEM   | Half Yearly or<br>Yearly as<br>required  |
| -DO-  | -DO-     | -DO-   | -DO- | -DO- | Periodical checking<br>and cleaning of all<br>pumps, motors and<br>control panels   | Half Yearly or<br>Yearly as<br>required  |
| Hydropneu<br>matic<br>Pump for<br>Flushing<br>water | Grundfos | with VFD<br>system/Mic<br>roprocesso<br>r Based<br>System<br>with three                                    | Nos  | 3    | Carry out preventive<br>maintenance as per<br>the check – list,<br>Equipment manuals  | Half Yearly or<br>Yearly as<br>required  |

|   |          | pump(2W+<br>1S), Per<br>pump flow<br>250 LPM,<br>Head 80<br>Mtr. |      |      |  |   |
|---|----------|--|------|------|--|---|
| -DO-  | -DO-     | -DO-   | -DO- | -DO- | Periodical checking<br>and cleaning of all<br>pumps, motors and<br>control panels    | Half Yearly or<br>Yearly as<br>required |
| STP make<br>up pump of<br>Capacity<br>Of<br>250LPM,<br>Head 30<br>Mtr | Grundfos | Three<br>Pumps(2W<br>+1S)  | Nos  | 3    | Carry out preventive<br>maintenance as per<br>the check – list,<br>Equipment manuals | Half Yearly or<br>Yearly as<br>required |
| -DO-  | -DO-     | -DO-   | -DO- | -DO- | Periodical checking<br>and cleaning of all<br>pumps, motors and<br>control panels    | Half Yearly or<br>Yearly as<br>required |
| Drainage<br>Sump<br>Pump,   | KSB      | Capacity of<br>250LPM,<br>Head 30<br>Mtr.(1W+1<br>S)             | Nos  | 2    | Carry out preventive<br>maintenance as per<br>the check – list,<br>Equipment manuals | Half Yearly or<br>Yearly as<br>required |
| -DO-  | -DO-     | -DO-   | -DO- | -DO- | Periodical checking<br>and cleaning of all<br>pumps, motors and<br>control panels    | Half Yearly or<br>Yearly as<br>required |
| Irrigation<br>Pump,   | Grundfos | Capacity of<br>300 LPM,<br>Head 50<br>Mtr.(1W+1<br>S)            | Nos  | 2    | Carry out preventive<br>maintenance as per<br>the check – list,<br>Equipment manuals | Half Yearly or<br>Yearly as<br>required |
| -DO-  | -DO-     | -DO-   | -DO- | -DO- | Periodical checking<br>and cleaning of all<br>pumps, motors and<br>control panels    | Half Yearly or<br>Yearly as<br>required |

Note: All consumables and spares parts shall be in the scope of vendor only.

# 10. Street Light

- a) Check all street lights regularly.
- b) In event of fuse, change the lights immediately.(Cost bear by the Vendor

# Only)

- c) In solar panels, check the healthiness of battery on daily basis, if required
- d) In case of battery faulty, it has to be repaired by the vendor and cost bear by vendor itself.

#### 11. Overhead Tank:

|     | Name of the      | Drinking W | ater Tanks | Flushing Water Tanks |          |  |
|-----|------------------|------------|------------|----------------------|----------|--|
| SI. | building         | Numbers    | Capacity   | Numbers              | Capacity |  |
| No. |                  |            |            |                      |          |  |
| 1.  | School of Social | 1          | 25 KL      | 1                    | 18 KL    |  |
|     | Science Building |            |            |                      |          |  |
| 2.  | School of Earth  | 1          | 25 KL      | 1                    | 18 KL    |  |
|     | Biology Building |            |            |                      |          |  |
| 3.  | Hostel           | 3          | 17 KL      | 3                    | 6 KL     |  |
| 4.  | Mess Block       | 1          | 15 KL      | 1                    | 10 KL    |  |
| 5.  | School Of        | 1          | 25 KL      | 1                    | 10 KL    |  |
|     | Education        |            |            |                      |          |  |
| 6.  | Lecture Hall     | 1          | 20 KL      | 1                    | 18 KL    |  |
|     | Complex          |            |            |                      |          |  |
| 7.  | Administrative   | 1          | 10 KL      | 1                    | 15 KL    |  |
|     | Building         |            |            |                      |          |  |
| 8.  | Guest House      | 1          | 10 KL      | 1                    | 15 KL    |  |
| 9.  | VC Residence     | 1          | 5 KL       | 1                    | 5 KL     |  |
| 10. | Sub Station      | 1          | 1 KL       | 1                    | 1 KL     |  |
|     | Building         |            |            |                      |          |  |
| 11. | Main Gate        | 1          | 1 KL       | 1                    | 1 KL     |  |

- a) Cleaning of tanks regularly.
- b) Valve Operation during filling of water tanks.
- c) Half Yearly cleaning of water tanks with chlorine/bleaching powder.

#### SECTION B

## A) The Operation and Maintenance envisage all the required tasks to ensure

- a) Maximum system availability for the use of uninterrupted electrical power supply in entire campus.
- b) Most efficient, effective and optimum usage of electrical system.
- c) Enhance the life expectancy of equipments.
- d) Regular operation and maintenance of equipments.
- e) Compliance of safety rules and regulations.
- f) Preventive maintenance / scheduled maintenance.
- g) Break down maintenance.
- h) Maintenance of proper records of operation and maintenance (Log book, Registers etc. for the compliance of Electricity Act provisions.).
- i) Assistance to CUSB in expansions and modification.

### B) Operation and Maintenance of Sub-stations.

Switching ON and Switching OFF of 11kV 1 incoming and 2 outgoing Vacuum Circuit breakers, LT switchgears (Air Circuit breakers, Moulded case circuit breakers, Street Lights, AMF panels, DG set etc. as and when required according to load requirements and instructions from CUSB.

- 1. Maintaining records of all operations and various parameters of electrical system such as loads in KW, voltage in volts, current in Amp, power factor, frequency in Hz, , energy consumption in KWH on hourly/daily/monthly and yearly basis. The readings of the current, voltage, power factor and other related parameters through various meters etc. shall be monitored round the clock. Necessary action is to be taken if the readings are not normal.
- 2. Maintaining records of power failures with reasons and timing at all sub-station.
- Operation of DG set in event of power failure and non-functioning of AMF Panel according to load requirements and instructions from CUSB.
- 4. Maintaining log book records mentioning the all operations parameters such as running hrs, rpm, lub oil pressure, water temperature, loads in KW, voltage, current, power factor, frequency, energy consumption, fuel consumption on hourly/daily/weekly/fortnightly/monthly/quarterly/half yearly and yearly basis.
- **5.** Filling of coolant, Diesel as and when required in DG sets.
- **6.** Checking and maintenance of battery charger and batteries of DG set.
- 7. Daily Checking of DG set as per operation & maintenance manual of Cummins. Any abnormality in DG set must be informed to OEM and get rectified. All unskilled manpower will be provided to OEM service provider in case it requires during servicing and overhauling of DG set.
- **8.** With prior intimation to CUSB, Changing the taps of transformers have to performed as and when required to maintain the system voltage in permissible limit.
- **9.** Attending the systems faults and restoration of the power supply without unjustified delay. Submission of cause of fault and their repair report is mandatory.
- **10.** Maintaining records of maintenance (preventive as well as break down).
- 11. Co-ordination with operators/Engineer of SBPTC Ltd 33 KV/11 KV Grid Substations for uninterrupted electrical power supply at 11 KV level from grid substation. Each shutdown and tripping information have to recorded in logbooks with all details such as duration, cause

etc.

- **12.** Follow shut down system (Line clearance) and maintains a shutdown book to facilitate system maintenance without accident / mishaps.
- **13.** Cleaning of premises, Cleaning of Transformer, HT panels, LT panels etc; and repairing etc. is to be done immediately if on inspection any defect is found.
- **14.** General cleaning, picking, cutting, vegetation growth in substation yard every month and time to time as and when required. Substation must be kept clean.
- 15. Checking and maintaining the prescribed safety aids are in place and in good order. Must have to observe all safety precautions and ensure safety of men, materials and equipments during the contractual period.
- **16.** Trouble shooting and repair of Electrical circuit's components in case of any abnormal conditions.
- **17.** Checking of individual battery voltage, contacts, applying of petroleum jelly, in all battery banks etc.
- **18.** Checking of all earthing points and their contact tightness.
- **19.** Checking and sealing of cable entry holes.
- **20.** Data Logging the breakdown events from the relay, if required.
- 21. Cleaning of all the equipment and keeping them in neat and clean condition. For the above operations (routine, breakdown & cleaning) required Tools, plants, Instruments safety equipments (Hand gloves, pliers, screwdriver etc.) and consumable items viz. grease, oil, cloth, dhoti etc. needed are to be arranged by the contractor at his own cost. Besides above, the contractor will also provide and upkeep emergency light, Torch etc. required for smooth discharge of the job.
- 22. Maintenance of all Fire extinguishers of sub-station and its testing through authorized Agency is contractors liability. Fire buckets by filling of sand up to optimum level shall be maintained by agency.
- 23. Testing and maintenance including tripping test by secondary injection (If Required and primary injection for CT's also) of all the protection relays, Master trip relay and auxiliary relays shall be done .A Proper test report shall be obtained and submitted by contractor.
- 24. All the lighting fixtures i.e. tube lights fitting, ,CFL fittings, LED fittings, Switch & sockets, MCB's, PDB.s & LDBs, power and light circuit wiring etc., shall be maintained all the time and illumination should be proper in all substation/STP/Pump House/Street Light of campus.
- 25. The agency shall be held responsible for any damage occurred due to Mal-operation of equipment and shall make good the losses.

#### **SECTION C**

#### Maintenance of Underground(RCC) cabling system.

- 1 Survey of underground cable with visual inspection on weekly routine basis.
- If faults occurs in underground XLPE cable, locating the fault by cable fault locator machine and Repairing of cable fault using required straight through joints will be done by agency within minimum possible time of 24 hrs in case of HT cable and 8 hrs in case of LT cable. (Required straight through joint shall be kept in spare all times of size of 3.5coreX400 sq.mm, 3.5coreX300sq mm, 3.5 coreX120 sq mm, 3.5 Core X 240 sq.mm).
- 3 Checking all cable terminations (outdoor & indoor type) for proper connections. If tightening & Re-termination is required, Tightening and termination will be done by the contractor and material for terminations will be bear by vendor.
- 4 Checking and recording of IR values of all cables with Megger of suitable range.
- 5 Dewatering the trench in case of water logging.

### C) SECTION D

Day to Day Operation & maintenance work round the clock also includes the followings

- A) To attend the complaints within 1(one) hour after the receipt of complaints (replacement of faulty or damaged switch/socket/MCB/MCCB/RCCB/Calling Bell/Batten holder/Ceiling Rose/DB/ Fan Regulator /exhaust fan/ceiling Fan , No power complaints , replacement of fuse or burnt lamp or lamp fittings , repairing of light fittings, removal of burnt/ damaged wires/cables and drawing of wires & cable, Repair of switch gear etc) through complaint center/ service center/ JE (Elect.)/ Engineer- in- Charge/ occupants of campus in emergency related to electrical system of Academic & residential complex buildings with their own experienced trained manpower under the own supervision, tools & tackle, safety apparatus & equipments etc.
- B) Complaint center will be maintained by the engaged manpower of agency under direct supervision of JE (Elect.)/ Engineer- in- Charge.
- C) General housekeeping and cleanliness in and around the substations & various Electrical Panel rooms of Academic &

residential complex's buildings, rising main ducts etc. Necessary testing of Electrical Installation will be carried out as per direction of JE (Elect.)/ Engineer – In- Charge and record should be maintained by the engaged manpower for further inspection by Electrical authority. The maintenance & testing records shall be checked & verified by the CUSB authority.

- D) Complete preventive maintenance of all types of feeder pillars.
- E) The minimum qualification and manpower requirement in shift wise are as follows.

| Sr.<br>no | Area of work   | Required minimum manpower per shift   | Required<br>Nos. of<br>Shifts | Eligibility  |
|-----------|--|---|-------------------------------|--|
| 1         | 11/0.44 KV<br>sub- station<br>with 2 x 1600<br>KVA<br>transformers | 01 no Highly skilled in each shift to attend no power complaint anywhere in the campus during Day & Night.  | 3 shifts                      | Highly skilled- ITI with 4 years / wireman license holder with 6 years electrical work experience in operation & maintenance of HT & LT switchgears, MV/ LV transformer, DG set, Lift, HVAC, Pump starters, motors, HT & LT cable jointing & termination works and having HT & LT work permit issued by the Electrical Inspector |
| 2         | Pump House<br>& STP  | 1 no Skilled and attend all complaints for day to day repair and maintenance in their respective area. Operate STP and pump House round the Clock. Trouble shooting of Pumps, Blowers, rewinding of motor etc. Dozing of Alum and bleaching powder. | 3 shifts                      | Skilled- ITI with 3 years / wireman license holder with 4 years electrical work experience in operation & maintenance of HT & LT switchgears, MV/ LV transformer, DG set, Lift, HVAC, Pump starters, motors, HT & LT cable jointing & termination works and having HT & LT work permit issued by the Electrical Inspector        |
| 3         | Plumbing   | 1 no Skilled Plumber in each shift to attend all complaints for day to day repair and maintenance.  | 3 shifts                      | Skilled- Fresh / ITI with 3 years having Municipal license with 4 years work experience in operation & maintenance of HT & LT switchgears,   |

| 4 | General | 1 no Helper(Unskilled) for assist to Electricians/Techanici an/Plumber for day to day maintenance. | 2 shifts | Having experience to assist in Electrical Works and Plumbing works. |
|---|---------|--|----------|---|
|---|---------|--|----------|---|

Beside above one hand on experienced Diploma Electrical Engineer 5 years' experience in protection relay setting, testing of major equipments and performing preventive as well as breakdown maintenance of HT/LT breakers, Transformers, DG Gen Sets, STP, HT/LT switchgear, HT/LT underground cable with HT supervisor license should be in job all the time.

Any other man power required shall be made available by the agency for the proper functioning and maintenance of the system & this will be deemed to be covered in the quoted price. (Reliever should be arranged by the agency in quoted rates)

Proper 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 stipulated time period.

#### **SECTION E**

#### **OPERATIONAL MANNUAL SEWAGE TREATMENT PLANT**

#### 1. Daily Operational Checks:

The Operator must at least daily verify that the blower is operating properly and air is bubbling into the system. This is especially important after a power outage. The sound of air bubbling inside the treatment plant (much like the sound of a Jacuzzi) is an indication that the blower is working properly.

If your blower may be set so that the one blower does not run continuously. In this case you may have to check several times throughout the day to be sure that the blower comes on and off as it should not exceed sixteen hours without bubbling.

NOTICE: It is highly recommended that you take extreme caution in working around this equipment. There is a risk of electrical shock if the proper safety precautions are not followed. Vapors and liquids contained harmful gases in this system may be harmful and extreme caution is recommended. It is highly recommended that you wear rubber gloves when servicing this system and wash your hands and any body parts that come in contact with sewage solids or liquids. Beware of splashes, particularly when the blower is operating.

The Operator must also look for and MUST TAKE APPROPRIATE ACTION if any of the following alarms or conditions occurs:

Incase of a power outage occurs there should be an alternative provision.

Anything out of the ordinary is noticed about the unit.

If the Operator must notify its designed representative, immediately if any one of the above conditions occurs.

**NOTE**: During your daily checks be sure that there is proper supply of water and electricity to the STP/Effluent treatment plant.

NOTE: STP sewage treatment plants are designed to operate at temperatures as cold as -3°C providing there is no interruption of electric power. If the electric power to the STP is off for any period of time during freezing conditions, it is the owner's responsibility to take immediate appropriate action. Such action must include charging of Bectokleen, monitoring the temperatures inside the system and taking whatever action is necessary to prevent freezing of any part of the system. This may include providing power to the unit by means of an auxiliary generator, or otherwise protecting the unit from freezing. Each day upon initial walk around of treatment unit, look for anything out of the ordinary including leaking, fittings, broken pipes, visible leaks of the containment vessel, vapor leaks, ice buildup or water overflowing.

For STP treatment systems with a surface discharge inspect the discharge area for excessive ice buildup. Excessive ice could obstruct the flow of effluent and may indicate that the automatic dosing siphon needs attention. Also inspect the effluent pipeline for dips that could trap water or otherwise restrict the flow of effluent because these conditions can cause a freeze up. The automatic dosing siphon normally continues to function properly with no attention but if it ceases to dose properly a shot of air under the bell will normally restore dosing. See the dosing siphon troubleshooting section.

Inspect the discharge area for color and odor of effluent. With a properly operating system you will find that the color of the effluent is clear and there will only be a small amount of suspended particles visible. The color of the effluent will typically be similar to the coloration of the source water. The effluent should be essentially odorless, typically it will have a slight earthy odor that is comparable to the smell of a handful of moss or dirt. If the effluent smells of a sewer or septic nature, your treatment plant may not be functioning properly. Please check to make sure that the blower is operating and that you hear the bubbling sound described above.

Maintenance Checks at the beginning & end of Winter:

The following maintenance must be performed at the beginning and end of winter (unless otherwise recommended by engineering company or its designated representative):

Blower and air filter maintenance Remove the blower access cover Inspect the blower for any loose fasteners or fittings Remove, clean or replace the fresh air filter
Use compressed air to clean the suction head
Change coupling of suction raw sewage pump
Operate for media filter back wash for 15 minutes
Operate for Carbon filter back wash for 10 minutes
Operate sludge recirculation line for 5 minutes

#### SUMMER OPERATION

For summer operation, install a plastic bag around the return air filter and insert filter into the return air pipe, make sure that the filter is installed below the blower air intake. For winter operation remove the plastic bag that covers the return air filter and re-insert the return air filter into the return air pipe, make sure that the filter is installed below the blower air intake.

Remove the return air filter and clean or replace it as necessary. A Tuffy type cleaning pad with a plastic wire tie as a handle is used as a return air filter element.

NOTE:- A dark brown/black tar like residue is commonly found on the return air filter. Typically, return air filters are replaced (or sometimes cleaned) before this tar-like residue accumulates to the point where it begins to restrict return air flow.

- 2.3 Shut off all power to the blower and control panel.
- 2.4 Locate the removable portion of the blower housing.
- 2.5 Remove screws or bolts
- 2.6 Remove all the screws or bolts that secure the impeller cover to the impeller housing.

**NOTE:-** Wear rubber gloves and eye protection for the following cleaning procedure:-

- 2.7 Open the blower housing being careful not to cut yourself on the sharp edges. Clean the cover with a suitable cleaner and brush (a kitchen cleaner similar to 409 and an old toothbrush are recommended). Remove accumulations of the brown tar-like residue.
- 2.8 Clean the inside of the blower housing, especially the area on the bottom of the housing between the inlet and outlet pipes with the same brush and cleaner. This area must be free of the tar like buildup as the clearances are very tight. When performing this cleaning under winter conditions careful use of a heat gun or other heater is recommended.
- 2.9 Clean the impeller blades as necessary with the same cleaner and brush.
- 2.10 Reassemble the blower and test.
- 2.11 Reinstall the blower access cover.
- 2.12 Setting or checking the blower.
- 2.13 Turn off the power to the blower control

- 2.14 Remove the four screws holding the blower control cover (being careful not to drop them).
- NOTE:- During cold weather you should use a hair dryer or heat gun to carefully warm the wires inside the blower control before bending them back to move the cover out of the way.
- 2.15 Look at the dipswitches inside and compare the dipswitch settings to the chart on the inside of the cover that gives on /off times for each possible dipswitch setting.
- 2.16 Adjust the dipswitches if needed.
- 2.17 Write down the new timer setting on a log that is kept in a conspicuous place so it's easy to find when performing daily checks STP O&M Manual.
- 2.18 Replace the blower cover and gently tighten the four screws that secure it.
- 2.19 Turn the power back on and make sure that the blower operates properly.
- NOTE:- The power to the blower control must be cycled off then on again in order for new dipswitch settings to take effect. The power source should be disconnected and extreme caution should be used when servicing the unit.
- 2.20 Inspect the bulb for proper operation.
- 2.21 Place all switches in the run position.
- 2.21 Reinstall the access covers.
- 2.22 Dosing siphon maintenance (if so equipped).
- 2.23 Remove the access cover to the dosing compartment.
- 2.24 Inspect the compartment for any floating debris or sediment also inspect the water quality, it should have little to no odor (odor should smell "earthy") and it should be clear.
- NOTE:- Some sediment is normal but the presence of any floating debris or more than small amount of sediment in the dosing compartment may indicate the sewage treatment plant needs to have solids removed from the pretreatment, intermediate treatment (if so equipped), FAST and dosing compartments.
- 2.25 Inspect the overflow float to make sure that it is in place and functions freely.
- 2.26 Effluent pump/high water alarm maintenance (if so equipped).
- 2.27 Remove the blower base to gain access to the effluent pump.
- 2.28 Inspect the compartment for any floating debris or sediment. Also inspect the water quality. It should have little to no odor (if it has any odor the odor should be "earthy") and it should be essentially clear with no more than a trace of suspended solids.

NOTE:- Some sediment is normal but the presence of any floating debris or more than a small amount of sediment in the pump compartment may indicate the sewage treatment plant needs to have solids removed from the pretreatment, intermediate treatment (if so equipped) and dosing compartment.

- 2.29 Inspect the float switches. If able, actuate the switches to ensure proper functioning and to ensure that the float switches don not encounter anything that will prohibit their proper operation.
- 2.30 Inspect the slip joint and make sure that the pump slip plate if fully seated.
- 2.31 Depress the switch on the high volter and wait until the regeneration sounds, then release.
- 2.32 Place all switches in the run position.
- 2.33 Reinstall the blower base and take careful consideration to not kink any wires air lines when reinstalling the unit.
- 2.34 Foam control system of V guard maintenance. The V guard foam control system (FCS) consists of a pump, spray bar assembly, spray nozzle(s), pump mount and switch. The FCS is installed within V guards a precautionary measure to help control and reduce the amount of foam in the treatment unit. This foam is a natural byproduct of the treatment process, especially during startup and periods when the hydraulic and organic loadings are changing. Engineering will recommended operating intervals for the FCS.
- 2.35 To operate the FCS, turn on the appropriate switch below the control. It is normal to hear the pump and sprayer making some noise.
- 2.36 During the periods when the FCS is operating a daily visual inspection is recommended to check how the pump and sprayer are functioning. To perform a visual inspection with the FCS turned on lift the blower housing and riser lid assembly vertically and shift it to the side approximately 4 inches.
- 2.37 Looking down into the riser you should see water spraying out of the spray nozzle.
- 2.38 If so, replace the riser cover and blower assembly.
- 2.39 If not, disconnect the power source and carefully remove the FCS and V guard assembly mount and remove the assembly from the treatment unit. Repair or replace it as necessary. If the pump runs but the nozzle does not spray, the nozzle could be plugged, In this case, remove the pump and sprayer assembly as stated above and clean or replace the nozzle as necessary.
- 2.40 Reinstall the pump and sprayer assembly of V guard in the same manner tht it was removed. Test to ensure proper operation and then reinstall the blower housing and riser lid assembly.
- 3. Trouble Shooting:-
- 3.1 When audible/visual alarm begins sounding with each audible. Visual alarm there is a corresponding visual alarm. Visually determine which alarm light is flashing to identify which system component is in the alarm mode, then proceed to the appropriate subsection below.
- 3.2 The red light on the EBR control panel begins flashing. Listen to see if the blower is operating. If not, make sure that EBR blower switch is turned on. After

the switch is turned on the alarm will continue to sound and/or flash for 15 seconds.

If the EBR switch is on and the blower in not operating, it may be because the timer is at an "off" portion of its cycle. See the section on the timer or check the blower a short time later when the timer is scheduled to have it operating. If the blower is not operating when it should be proceed to section 2.1 for procedures on cleaning the inside of the blower housing. If the blower is operating and the alarm still sounds or flashes, call your service representative.

- 3.3 If the visual and audible indicators are still present, replace the bulb with a new one. Contact your service representative for replacement parts.
- 3.4 High water alarm sounding or beacon illuminating.
- 3.4.1 Activate the silent/mute position on the alarm panel.
- 3.4.2 Check the electrical circuits for the effluent pump to see if the breakers have been tripped. If so, reset.
- 3.4.3 If the effluent pump begins pumping, you have achieved your objective. Monitor to see if the problem reoccurs.
- 3.4.4 If the effluent pump still does not work, remove the access cover to the effluent chamber.
- 3.4.5 If the water level is high in the effluent chamber, see the appropriate section under heavy maintenance.
- 3.5 Dosing siphon not functioning.
- 3.5.1 Inspect the effluent line to ensure that it has no "dips" in the line.
- 3.5.2 If the effluent line has dips in it, adjust it so that it slopes uniformly away from the treatment unit.
- 3.5.3 Open the access cover on the dosing siphon compartment. Look for the "bell" of the dosing siphon. This is a large round black object with concentric circles that foam "steps" on its top. There will also be a U-shaped piece of PVC pipe exiting the top of the bell .
- 3.5.4 Using a piece of hose or small diameter pipe and a squeeze bulb bubble air under the bell until it is full of air and you see it begin to bubble u inside the dosing compartment from underneath the bell.
- 3.5.5 You have now re-primed the dosing siphon and it will either trigger a dosing cycle or it will begin to build up enough water to trigger a cycle later.
- 4. Heavy Maintenance:-
- 4.1 Effluent pump removal and reinstallation.
- 4.1.1 Disconnect the electrical source before servicing.
- 4.1.2 Remove the blower base to access the effluent pump compartment.
- 4.1.3 Pump out the excess effluent so that the water level is at a workable height.

- 4.1.4 Remove the pump slip plate by grasping the provided handle. Disconnect electrical wiring (paying special attention to the location of the float switches) and remove the pump.
- 4.1.5 Replace or repair the pump a necessary.
- 4.1.6 Reinstall the pump in reverse order of removal paying special attention to the location of the float switches.
- 4.1.7 Reinstall the access cover.
- 4.2 Blower removal and reinstallation
- 4.2.1 Disconnect the electrical source before servicing.
- 4.2.2 Remove the access cover to the blower compartment.
- 4.2.3 Disconnect the airlines to and from the blower.
- 4.2.4 Remove the blower mounting hardware.
- 4.2.5 Disconnect the electrical connection to the blower.
- 4.2.6 Remove the blower and repair or replace as necessary.
- 4.2.7 Reinstall the blower in the reverse order paying special attention to the electrical connections.
- Replacement Parts:-
- 5.1 Media for filtration- Follow the operation and maintenance instructions for cleaning the ACF and MGF every 12 months.
- 5.2 Blower and EMF coupling- Spares should be replaced at every 1900 run.
- 5.3 Attend by pushi9ng the run switch to Mute/Off. With power applied to the PBR control panel, inspect to see if the PBR bulb is operating. You should see a sign when looking in the general direction on clean and change it. If not, proceed to step 3.4. If so, contact your service representative.
- 5.3.4 Disconnect the power to the PBR control panel.
- 5.3.5 Inspect the connection of the power/sensor cable to EBR. Ensure that the bulb is plugged in. Check for any corrosion in the connector body and if present scrape or sand it out.
- 5.3.6 Clean the top mounting and charging inlet that is in the upper PBR holding fixture.
- 5.3.7 Reinstall the mountings.
- 5.3.8 Reconnect power to the PBR control panel and place the switch in the RUN position
- 5.3.9 Inspect to see if the bulb glows and the visual and audible indicators stop. NOTICE:- UV light can cause skin and eye damage. Use caution when working around ultra-violet light. Avoid looking directly at the UV bulb when it is turned on. The power source should be disconnected and extreme caution should be used when servicing the unit.

# **Special Terms & Conditions**

- 1. Rates quoted in the financial bid must be inclusive of all central, state, local taxes, insurances, levy, cess, transportation & accommodation charge etc. including trade tax on works contract and service tax. There should be no increase or variation in the tendered price even in case of changes in service tax, etc. Rate are also inclusive of payment to the Labour Department in accordance with the prevailing Labour law, including all statutory liability fixed by the Labour commissioner or any other law enforcement agency.
- 2. Rates quoted in the financial bid must include setting of relays, routine test of transformer, HT& LT breakers, CT & PT, filtration /dehydration and BDV testing of transformer oil both 1.6 MVA 11/0.433 kV HT transformers and tighten the screws, nuts/bolts, HV/LV Connections, rising mains, bus duct etc. of entire 11/0.433 KV electric substation.
- **3.** A minimum quantity of consumable/spares for routine preventive maintenance may be kept at site store to minimize time of maintenance. All consumable/spare parts shall be of same make & type as installed as far as possible or approved.
- **4.** The agency shall be responsible for general cleanliness, hygiene of the portion occupied by them in the substation.
- **5.** Agency 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 & bye laws applicable will be obeyed by the agency.
- **6.** Daily attendance of the staff shall be maintained by the agency and the agency shall make it available to CUSB Engineer-in charge for inspection as and when required.
- **7.** Without taking prior approval from the CUSB Engineer-in -charge, no fittings/materials will be removed for the purpose of repairs/replacement.
- **8.** CUSB Engineer-in-charge shall be at liberty to carry out surprise check on the persons as deployed by the agency in order to ensure that persons deployed by him are doing their duties.
- 9. For performing the assigned work, the agency shall deploy medically and physically fit persons. The agency shall ensure that the persons are punctual and disciplined and remain vigilant in performance of their duty. Persons so engaged by the agency shall be from amongst properly trained electrician of high integrity and good conduct, and shall be conversant in the local language i.e. Hindi. In no circumstances, persons below 18 years of age should be employed.
- **10.** The agency shall further keep the CUSB Engineer-in-charge indemnified against any loss to the CUSB property and assets. The

- CUSB shall have further right to adjust and/or deduct any of the amounts as aforesaid from the payments due to the agency under this contract.
- 11. The agency shall ensure that the persons so deployed do not allow any property of the CUSB related to Equipment's to be taken out of the premises without a Gate Pass signed by the designated officials of the CUSB officials.
- **12.** Saturdays/Sundays/holidays should be utilized primarily for the maintenance purposes, where shutdown is required, it should be planned well in advance in consultation with the Engineer-in-charge/JE of CUSB for giving prior information to user about shutdown timing.
- 13. The agency shall keep the equipment well maintained, neat and clean and adhere to the maintenance schedules of various equipments. On placement of work order they will prepare the maintenance schedule and discuss the same with Engineer-in- charge CUSB for its implementation. This may be revised from time to time as per the requirement.
- **14.** The agency/agency shall submit list of technicians & their working hours to be furnished and any change must be informed to the institute accordingly before the changes is affected.
- **15.** Approval of the statutory bodies like CEA/local bodies and shall be deemed to be included in the contract as soon as the present approval expires. The agency shall notify CUSB Gaya in writing about such approvals to be taken and inform the compliance of the same.
- **16.** The persons deployed by the agency for the services mentioned above shall be the employees of the agency for all intents and purposes and that the persons so deployed shall remain under the control and supervision of the agency.
- 17. The agency maintain a complaint/ fault register, As & when a complaint arises in respect of any electricity problem, the agency employee shall enter the complaint in register & ensure remedial action proactively & instantly.
- 18. The agency shall at his own cost, if required, take necessary insurance cover in respect of the aforesaid services rendered to CUSB Gaya and shall comply with the statutory provisions of Contract Labor (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 agency 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.
- **19.** Agency 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 Shops and Establishment Act. The agency shall arrange to provide reliever equally qualified in case of absence/leave/off etc. The agency 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 agency 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 CUSB Gaya, a sum as may be claimed by CUSB Gaya.

- **20.** Agency shall be deposit 10% of the contract value along with the acceptance of contract as security in the form of Bank Guarantee/ FDR in favor of CUSB Gaya, and this will be refunded after the contract has been terminated or ended. The validity of the BG should be beyond 60 days of contract period of 12 months.
- 21. Agency shall keep the CUSB Gaya indemnified against all claims whatsoever in respect of the employees deployed by the agency, in case any employee of the agency so deployed enters in dispute of any nature whatsoever, it will be the primary responsibility of the agency to contest the same. In case CUSB Gaya is made party and is supposed to contest the case, the CUSB Gaya will be reimbursed for the actual expenses incurred towards Counsel fee and other expenses, which shall be paid in advance by the agency to CUSB Gaya on demand. Further, the agency shall ensure that no financial or any other liability comes on CUSB Gaya in this respect of any nature whatsoever and shall keep CUSB Gaya indemnified in this respect.
- 22. No accommodation facility will be provided by the CUSB Gaya.
- **23.** Payment will be made monthly after satisfactory completion of service on presentation of bill. No advance payment will be made.
- 24. Income tax/ other applicable taxes if any will be deducted at source as per the rules in force from the bill and the amount so deducted will be credited to the Income tax/concerned authority and a certificate of the amount credit will be issued by the Account Section of Institute.
- 25. Institute reserve the right to curtail or enhance the scope of work either by deletion of certain items entirely or by reducing/increasing the quantities of certain items as required and reviewed by the Institute from time to time and therefore, the final value of the work shall be worked out and paid to the extent of work actually carried out.
- 26. The successful contractor who is awarded with the operation & maintenance job of Electrical system/STP/Plumbing System shall sign a joint inventory having list of S/S, equipments / T&P, other items existing in the Sub-Station and electrical panel rooms and feeder pillars on the day of taking the contract. Inventory registers shall be maintained for all items to know the consumption / replacement over a period. He shall be responsible to replenish any shortages found during routine checks by

- the CUSB authority.
- **27.** Bidders stationed outside shall have to establish an office at site with the requisite technical and supervisory staff stationed.
- 28. The EMD will be returned to unsuccessful bidder after the award of works.. The earnest money deposited shall not carry any interest and will be refunded to the unsuccessful bidders. Earnest money paid by the successful contractor will be retained by the CUSB Gaya as a part of security deposit.
- **29.** CUSB Patna shall not be responsible for any expense incurred by bidders in connection with the preparation & submission of their bids, site visit and other expenses incurred during bidding process.
- **30.** Penalty Clauses

| SI. No. | Particulars   | Specified<br>Periods              | Penalty   |
|---------|---|-----------------------------------|---|
| 1.      | Minor break down in 11kV/0.433 VCB panels   | Time 2 hrs.(to restore supply)    | Rs. 500.00 per hour of delay when the duration exceeding the specified period   |
| 2.      | Major break down<br>(fault in Transformers,<br>DG Gen Sets, LT Panels<br>and accessories)     | 6 hrs.<br>(to restore supply)     | Rs. 1000.00 per hour of delay when the duration exceeding the specified period. |
| 3.      | Foul smell in flushing tank in buildings.   | 2hrs. ( to resolve<br>the issue.) | Rs. 500.00 per hour of delay when the duration exceeding the specified period.  |
| 4.      | Overflow of UG/OH tanks & dryness of the tank.  | Continuous 30 minutes.            | Rs. 500.00 per hour of delay when the duration exceeding the specified period.  |
| 5.      | In case of any dislodgement of DI/GI water pipe line network.( Underground Pipe Line Network) | the issue.)                       | Rs. 500.00 per<br>hour of delay when<br>the duration<br>exceeding the           |

|    |  |   | specified period  |
|----|--|---|---|
| 6. | Sewer pipe line choke/Overflow of sewer manhole. | 3hrs. (To maintain<br>the water level in<br>sewer line to avoid<br>overflow through<br>any manhole) | Rs. 500.00 per hour of delay when the duration exceeding the specified period |

- a) If the power supply to any 11/0.4330kV substation suffers even for a day (24 hrs.), an amount equal to 10% of the monthly contracted amount per day (reckoned from the day of breakdown up to restoration) will be deducted from the monthly payment.
- b) If maintenance work is not carried out as per schedule, 5% of monthly rate of this contract will be deducted from the monthly bill.
- c) There shall be a penalty in case of short supply/fail to supply the man power for day to day operation and maintenance. A penalty of Rs.2000/-day/manpower shall be liable on first occasion and the same shall be increased to Rs.4000/- for second occasion further on wards. In case the situation does not improve, the contract shall be rescinded.

Annexure-I
List of tentative equipment and allied accessories installed in the Campus.

| SI.No. | Description of Items  | Unit         | Qty    |
|--------|---|--------------|--------|
| 1      | 11 kV , 630A, 25 KA Vacuum Circuit Breaker 3 PANEL BOARD :  | Each         | 1      |
| 2      | TRANSFORMERS: 11/0.433 kV 1600 kVA Dyn 11   | Each         | 2      |
| 5      | Diesel generator set with AMF Panel   |              |        |
|        | a) 625 KVA<br>b) 320 KVA  | Each<br>Each | 2<br>1 |
| 6      | 433 V Mains , Emergency, LT PANELs (Sub-Station)  | Each         | 1      |
| 7      | HT(Up-to 300 Sqr mm) and LT cables (Up-to 400 sqrmm)  | Km.          | 20     |
| 8      | EXTERNAL LIGHTING :   |              |        |
|        | STREET LIGHTING (9 Metre with double arm and 7 Metre with single arm over hang)                   | Each         | 150    |
|        | a) 120 watt LED Street Light-   | Each         | 120    |
|        | b) 90 Watt LED Street Lights- c) 90 Watt LED Street Lights with 24 Volt Battery(100 Ah)           | Each         | 10     |
|        | with Solar Panel with PCB card.   | Each         | 25     |
|        | d) Bollard light on 3 mtr and 1.5 mtr pole of 15 watt LED/5 Watt LED outdoor light(Make-Crompton) | Each         | 65     |
| 9      | Earthing  | Each         | 100    |
| 10     | Outdoor L.T. Feeder Pillar (Essential and Non essential)  | Each         | 10     |
| 11     | AMF panel   | Each         | 1      |
|        |   |              |        |

| 12 | Emergency & normal LT panel in Panel Rooms of ALL buildings   | Each | 20  |
|----|---|------|-----|
| 13 | LED Flood Lights 150 Watt   | Each | 15  |
| 14 | Light/ fan points of campus ( Pump House+ Subststaion+STP)  | Each | 120 |
| 15 | Light fittings 28 Watt LED-T5   | Each | 90  |
| 16 | PDB,LDB, EDB and all DBS  | Each | 15  |
| 17 | MCCB of rating 800 A, 400 A,250 A, 100 A,   | Each | 31  |
| 18 | Capacitor Bank of 400 KVA   | Each | 02  |
| 19 | <ul> <li>a) 10 HP Submersible pump 1 No,</li> <li>b) 6 HP Submersible pump 1 No.,</li> <li>c) Hydro pneumatic Pump System (With VFD system/Microprocessor based system with 3 pumps (2W+1S), per pump flow 300 LPM, Head 90 Meter.)</li> <li>Make-Groundfos.</li> <li>d) Hydropneumatic Pump for Flushing water(with VFD system/Microprocessor Based System with three pump(1W+1S), Per pump flow 250 LPM, Head 80 Mtr.</li> <li>Make-Groundfos.</li> <li>e) STP make up pump of Capacity Of 250LPM, Head 30 Mtr.(Three Pumps(2W+1S)). Make-Groundfos.</li> <li>f) Drainage Sump Pump.( Capacity of 250LPM, Head 30 Mtr.(1W+1S). Make-KSB</li> <li>g) Irrigation Pump, Capacity of 300 LPM, Head 50 Mtr.(1W+1S). Make-Groundfos.</li> </ul> |      | 01  |

# Coverage of Equipment Wise regarding consumables/spare parts

# **Annexure-II**

| <u>S.N.</u> | Equipment's/Area | Nature of          | <u>Remarks</u>  |
|-------------|------------------|--------------------|---|
|             | Wise             | <u>Maintenance</u> |   |
| 1.          | Transformer      | Non Comprehensive  | Minor repair up to the Rs. 10,000/- should be in scope of vendor, however major components will be provided by the University subject to the condition that vendor shall informed well in advance.  |
| 2.          | 11 VCB Panel     | Non Comprehensive  | Minor repair up to the Rs. 10,000/- should be in scope of vendor, however major components will be provided by the University subject to the condition that vendor shall informed well in advance.  |
| 3.          | DG Gen sets      | Non Comprehensive  | Consumables consume in Servicing(Annually) i.e lube oils, coolants etc. will be in the scope of vendor(as per OEM A,B,C checks ) In addition to the above, minor repair up to the Rs. 10,000/- should be in scope of vendor, however major components will be provided by the University subject to the condition that vendor shall informed well in advance. |
| 4.          | Pump House       | Comprehensive      | All motors/pumps periodically servicing is in scope of contractor. All consumables will be in scope of contractor. Mandatory spares will be kept well in advance for day to day maintenance. It is deemed that vendor will quoted consider above requirement.   |
| 5.          | STP              | Comprehensive      | All consumables and spares will be in scope of Vendor i.e. pump, blower, motors, all rotatory parts etc. Day to Day consumables i.e. Bleaching powder & Alum to be provided by the vendor as per requirement.   |
| 6.          | Street Lights    | Comprehensive      | In case of any lights fuse, replacement is in scope of vendor. No Extra Charges shall be paid for the same.   |
| 7.          | LT panel         | Non Comprehensive  | Minor repair up to the Rs. 10,000/- should<br>be in scope of vendor, however major<br>components will be provided by the  |

|    |              |                   | University subject to the condition that vendor shall informed well in advance |
|----|--------------|-------------------|--|
| 8. | Feeder Panel | Non Comprehensive |  |

#### **General terms and Conditions**

Complaint receipt format will be issued by CUSB with all details such as complaint serial no., Date & time for the receipt of complaints, Date & time of rectification of Complaints, Material used, Signature of occupant with their remark, Classification with No Delay or other, details of work done, nature of complaints, Balance work if any, signature of worker. However complaints details will be maintained by the agency during complaint rectification period.

Agency has to maintain the system in original through the engaged manpower, for that agency has to maintain history card of each major equipments.

- 1) Engaged manpower in different category should not be paid less than minimum wages and allowances notified by Govt. time to time. Wage payment should be through Bank account and wage payment details of engaged manpower should be furnished to CUSB along with each monthly bills. Agency must follow the all labour relevant act and regulation
- 2) At any stage, if it is opined by Engineer –in- charge that manpower engaged by the agency is/are not performing as per system requirement, agency has to provide alternative manpower within short time of 5 days.
- 3) At any stage, if it is opined by CUSB Authority that the agency is not performing satisfactorily as per system requirement, CUSB reverses right to terminate the contract as deemed fit after giving 10 days notice. In such a situation, CUSB may engage another agency on contractor's Risk and Cost. The security deposit of the agency will be forfeited by the Institute, if agency leaves the contract before contract ending period or non-completion of the full contract.
- 4) Engaged manpower by the agency should have proper dressed and have a identity card all the time.
- 5) Engaged manpower should not indulge in any unlawful activity inside/outside of campus.
- 6) Engaged manpower by the agency cannot claim employment during contract or after expiry of contract or on termination of contract.
- 7) Any change in engaged manpower should be duly notified in advance of 7 days to Engineer In- charge (CUSB).
- 8) All safety measures will be the responsibility of agency at their own cost. The agency will be solely held responsible for any accident occurring due to non-compliances of safety measures.
- 9) For better communication amongst the engaged manpower and JE (Elect.)/

- Engineer- in- charge, Cell phone details of individual engaged manpower will be provided by the agency to CUSB. Cost incurred in communication by the engaged manpower will be responsibility of Agency.
- 10) Agency has to maintain attendance register of deployed manpower at different substation/ locations shift wise.
- 11) The Contractor, whose tender is accepted, will be required to furnish performance guarantee of 5 % (Five Percent) of the tendered amount within the specified period. This guarantee shall be in the form Banker's cheque of any scheduled bank / Demand draft of any scheduled bank / Pay order of any scheduled bank/ Bank Guarantee of any scheduled bank.
- 12) Receipts or Guarantee bonds of any scheduled bank or state bank of India in accordance with the prescribed form.
- 13) Tenderers are advised to inspect and examine the said site, buildings and location to get acquaint with the site conditions, topography, geography etc and satisfy themselves before submitting their tenders, 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 tender. A tenderer shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The tenderer shall be responsible for arranging and maintaining at his own cost for tools & plants, water, electricity, access, facilities for workers and all other service required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a tenderer 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 local conditions and other factors having a bearing on the execution of the work.
- 14) The competent authority reserves to himself the right of accepting the whole or any part of the tender and the tendered shall be bound to perform the same at the rate quoted.
- 15) This Notice Inviting Tender shall form a part of the contract document. The successful tenderer/ contractor, on acceptance of his tender by the Accepting Authority, shall, within five (7) days from the stipulated date of start of the work, sign the contract, consisting of the notice inviting tender and all the documents including.
- 16) Additional conditions specifications, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
- 17) In case the contractor fails to commence the work specified in the tender documents on 7th day or such time as may be mentioned in the letter of award or from the date of handing over the site wherever is later, the Institute shall, without prejudice to any other right or remedy, be at liberty to forfeit whole of the earnest money absolutely.
- 18) The bidders may seek any clarification during the office hrs.

# SOQ

# **Schedule of Quantity (Price Bid)**

Tender Notice No.: CUSB/PSD/EE/Tender/07/2020-21, dated 17/09/2020 Name of Work: Annual Operation & Maintenance Contract of 1 No. 11/0.433 KV Load Sub-Station, 280 KLD STP, External Lighting 3 Nos. D.G. Sets and Water Pump House round the clock"

at Central University of South Bihar, Panchanpur, Gaya, Bihar.

| S.No | Description Of Item  | Unit    | Quantity | Amount for 12<br>Months |
|------|--|---------|----------|-------------------------|
| 1.   | Annual Operation & Maintenance Contract of 1 No. 11/0.433 KV Load SubStation, 280 KLD STP, External Lighting 3 Nos. D.G. Sets and Water Pump House round the clock"  (Detail mentioned in Scope Of Work) | LS      | 1        |                         |
|      | Total Amount   |         |          |                         |
|      | Total Amount in  | n words | :        |                         |

Note:

Quoted rate will be all inclusive of applicable taxes.

# UNDERTAKING BY THE TENDERER(S)

(On letterhead)

| NAME OF WORK:  |
|--|
| Tender Notice No. :  |
| We confirm that we have quoted the rates in the tender considering Inter-alia the  |
| <ol> <li>Tender Document(s) including all Annexures, Technical Specification, Scope of Vendor, Purchase Rules and Procedure of University.</li> <li>Additional Document(s) (if any)</li> <li>BOQ Document (Price Bid Format)</li> <li>Corrigendum (if any)</li> <li>Pre Bid Meeting Minutes (if any)</li> </ol>  |
| We (Name of the  |
| Tenderer) hereby certify that we have fully read and thoroughly understood the tender requirements and accept all terms and conditions of the tender including all corrigendum/addendum issued, if any. Our offer is in confirmation to all the terms and conditions of the tender including all corrigendum/addendum, if any and minutes of the pre-bid meeting. In the event our offer is found acceptable and contract is awarded to us, the complete tender document shall be considered for constitution of Contract Agreement. |
| SIGNED FOR AND ON BEHALF OF TENDERER(S)  |
| Name of Tenderer(s)  |
| Date :/  |
| Place:   |

**Seal & Signature of Tenderer** 

NOTE: This declaration should be signed by the Tenderer's authorized representative on COMPANY LETTERHEAD who is signing the Bid and same to be submitted with Tender.

# **Annexure-III**

# CENTRAL UNIVERSTIY OF SOUTH BIHAR,

Tender Bid Document "Non-Comprehensive Annual Operation & Maintenance Contract of 1 No. 11/0.433 KV Load Sub-Stations, 3 Nos. D.G. Sets and Water Pump House" at Central University of South Bihar, Panchanpur, Gaya (Bihar)

#### **Proforma for Labour Details**

| S.N. | Name | Category<br>of<br>Manpower | Relev<br>ant<br>Exper<br>ience | Certification/<br>License No., if<br>applicable | Educational Qualification |
|------|------|----------------------------|--------------------------------|---|---------------------------|
| 1.   |      |                            |                                |   |                           |
| 2.   |      |                            |                                |   |                           |
| 3.   |      |                            |                                |   |                           |
| 4.   |      |                            |                                |   |                           |
| 5.   |      |                            |                                |   |                           |
| 6.   |      |                            |                                |   |                           |
| 7.   |      |                            |                                |   |                           |
| 8.   |      |                            |                                |   |                           |
| 9.   |      |                            |                                |   |                           |
| 10.  |      |                            |                                |   |                           |

| Date:            |        |           |   |
|------------------|--------|-----------|---|
| <b>Signature</b> | of the | contracto | r |

With date & Rubber Stamp

(Bidders to enclose this proforma after filling details alongwith the bid) Full Name:

Seal: