


# छत्रपति शाहू जी महाराज विश्वविद्यालय, कानपुर

Ref.No.- CSJMU/Engg.(E) /894 (I-III) /2017

Date: 13/07/2017

## प्रकाशनार्थ

	<b>छत्रपति शाहू जी महाराज विश्वविद्यालय, कानपुर</b> C.S.J.M.U/Engg(E)/ 894 (I-III) / 2017	दिनांक: 13-07-2017
<b>अल्पकालिक निविदा सूचना</b>		
विश्वविद्यालय के ए.सी., ए.सी.प्लान्ट एवं विद्युत सब-स्टेशनों के अनुरक्षण/परिचालन हेतु सखम फर्मों से अलग-अलग मुहरबन्द निविदा दिनांक-24.07.2017 को अपराह्न 2:00 बजे तक सम्पत्ति अधिकारी, सी.एस.जे.एम. विश्वविद्यालय, कानपुर के कक्ष में रखे टेण्डर बॉक्स में आमंत्रित की जाती है। निविदा प्रपत्र एवं विस्तृत विवरण वि०वि० की वेबसाइट <a href="http://www.kanpuruniversity.org">www.kanpuruniversity.org</a> पर उपलब्ध है।		
(राम चन्द्र अवस्थी) कुलसचिव		

  
(राम चन्द्र अवस्थी)  
कुलसचिव

## **CHATRAPATI SHAHU JI MAHARAJ UNIVERSITY, KANPUR**

Tender No:-CSJMU/ENGG. (E)/ 894 (III) /2017

Date:-13/07/2017

1. **Name of work** -Operation & annual comprehensive maintenance of electric sub-stations 33/11 kv & 11/433 kv - 04 no's in CSJM University, Kanpur.
2. **Tender Cost:** - Tender forms along with terms and conditions can be obtained from cash counter of university from 13.07.2017 to 24.07.2017 up to 1:00 PM on payment of Rs.500.00. Receipt of tender cost must be enclosed with the technical bid. Alternatively forms can be downloaded from university website: [www.kanpuruniversity.org](http://www.kanpuruniversity.org). Downloaded forms to be submitted with a demand draft of Rs.500.00 in favour of "Finance Officer, C.S.J.M University, Kanpur" payable at Kanpur.
3. **Earnest money to be submitted** - The bidder shall deposit the earnest money of amount Rs.50,000.00 in the form of FDR/D.D./Bankers chq, in favor of "Finance Officer, CSJM University" Kanpur, payable at Kanpur.
4. **List of documents (Self attested Xerox copy) to be submitted necessarily with tender:-**
  - a. Valid 'A' class electrical contractor license.
  - b. Certificate of enlistment with PWD/CPWD or any other govt. /semi-govt. organization.
  - c. The firm must provide work experience certificate issued by competent authority for maintenance work experience of 11 KV sub-station for three years or 33 KV sub-station one year or more in govt. / semi-govt. organization.
  - d. GST number of the firm.
  - e. PAN card number of the owner/proprietor.
  - f. EPF number of the firm.
5. Tenderers are advised to go through the instructions carefully and furnish complete information along with their tender offer, failing which their offer shall not be considered. Tenders shall be accepted in two separate parts and each shall be in separate sealed cover as-
  - a. **TENDER BID PART I :-** Part I shall contain the earnest money, tender cost and all documents as above listed 2, 3, 4. The sealed envelope containing this part of the tender bid shall be super scribed- **Tender bid part- I ( Technical )**
  - b. **TENDER BID PART II :-** Part II shall contain tender schedule rates only. The sealed cover containing this part of the tender bid shall be super scribed- **Tender bid Part- II (Financial Bid)**
  - c. **TENDER BIDS PART I & II :-** Part I & II shall be put in one big envelope duly sealed and marked as "Tender for – Operation & annual comprehensive maintenance of electric sub-stations 33/11 kv & 11/433 kv - 04 no's in CSJM University, Kanpur." It will be endorsed to The Registrar C.S.J.M. University, Kanpur.
6. The tenders shall be received up to 02:00 PM on 24.07.2017 In the office of Estate officer, C.S.J.M. University, Kanpur. The tenders will be publicly opened in meeting hall of administrative building at 03:00 PM on the same day. Tenderers are advised & invited to be present there.
7. If the scheduled date of tender opening is holiday shall be received and opened on next working day at the same time and place or due to any other reason it will not be become possible to open the tenders shall be open on next working day at the same time and place.
8. The rates should be quoted in the form of schedule of quantities of tender document.
9. Work and site can be seen in the CSJM University campus on any working day.



P.T.O



**TERMS & CONDICTIONS**

1. The successful tenderer will have to execute an agreement with the university.
2. The university does not pledge to accept the lowest and reserves the right not to accept the whole or any portion of any tender as it may think fit without assigning any reason for non- acceptance or selection or can reject all tenders without assigning reason thereof.
3. The tender document once submitted will not be returned .
4. Conditional offers shall not be entertained in any case.
5. Payment will be on quarterly basis after satisfactory job work.
6. The contract shall cover all sub-station electrical work including T&P and labour etc. Materials shall include in the scope of work. The contractor shall be fully responsible for timely execution of all the activities under above contract so that the work is completed.
7. All required spare parts for sub-station maintenance shall be approved/same make & capacity& will be provided by the contractor at his own cost as per the direction of engineer/In-charge.
8. The contractor will make his own arrangements for electricity / water required for maintenance of sub-station. Nothing shall be paid on this account by the University.
9. The contractor will maintain temporary stores at the site of work at his own cost.
10. Regular Testing of maintenance material as per standard practice or direction of Engineer-in-Charge shall be carried by contractor at his own cost from standard laboratory.
11. GST will be paid extra by university as applicable. The TDS as per norms of U.P. state govt. / govt. of India shall be deducted from the bills of the contractors at the prescribed rates.
12. All electrical sub-station maintenance work under comprehensive AMC will be for one year from the date of start of AMC. This period may be extended with mutual consent of both the parties for further next two years on yearly basis.
13. Complaints shall be attended preferably on the same day but necessarily on the next working day. If any complaint remains pending for more than two days, penalty shall be recovered on the basis of logbook record at the rate of Rs.1000.00per day per complaint/default. The amount of penalty shall be recovered from contractor bill. Contractor shall be required to keep material of approved brand and other spare parts in ready stock for immediate replacement.
14. In case shortage of manpower penalty shall be recovered as for supervisor Rs.400.00, electrician/operator Rs.350.00, helper Rs.300.00 per man per shift.
15. If preventive maintenance is not completed according to time then 20% as penalty will be recovered from contractor AMC bill.
16. The sub-station shall be maintained for preventive maintenance and also shall be attended on "as and when required basis". Replacement of all sub-station spare parts including CT,PT,VCB,ACB,MCCB, relay, isolators, power contactors, transformer, oil and all relative materials included in the scope of work. The work is, therefore, for comprehensive maintenance including service and components.
17. In case replacement of HT cable box, CT,PT,VCB,ACB,MCCB, relay, isolators, power contactors, Amp Mtr, Volt Mtr, KVh Mtr, power factor Mtr, all the batteries & battery chargers, transformer winding/oil and all relative material equivalent make and rating should be provided by the firm. Guarantee/ warranty card with due seal of the dealer/supplier must be deposited with the university. The defective non- repairable materials can be taken by the firm. No extra payment will be made for the replaced above materials.
18. Contractor will have to do routine check of sub-station once every fortnight. It will be the contractor's responsibility to ensure that the sub-stations are working & clean at all times.
19. However if any one of sub-station break down or services are disrupted for two consecutive days, the contract may be rescinded without any notice and the security deposit may be absolutely forfeited.
20. Subletting the work is strictly prohibited and also the operating staff shall maintain discipline and works ethics. However the university shall have the right to ask any of maintenance staff to leave the premises if in the opinion of the university the conduct of such employer is not in the interest of the university.

21. The contractor shall have to pay the wages to workers as per the norms of U.P.govt./govt. of India.
22. A list of all complaints and its day to day status shall be recorded in a log-book and this record shall be put up to the Engineer in charge on regular basis.
23. Any referral dispute shall be referred to Vice Chancellor whose decision will be final.
24. 10% Security Amount of the tender value of annual comprehensive maintenance will be deposited by the successful bidder in the form of FDR in favor of Finance Officer, CSJM University, Kanpur
25. Successful tenderer has to complete the work as per work order failing which university can take action against the tenderer to cancel the work order and agreement. University can also forfeit the security money and black list the tendrer.
26. The electric sub-station will be handed over to contractor on **"AS IS WHERE IS"** condition.
27. During the maintenance/service/overhauling of relative works within the contract period, if any accident occurs connecting to equipment/persons of contractor, it will be responsibility of the contractor. The contractor shall be bound to follow all working safety norms both mechanical and electrical.
28. The C.S.J.M University authority may short close / cancel the contract at any time in case of unsatisfactory performance or defect on the part of contractor or due to any administrative and unforeseen reason.
29. The contract cannot be short closed / cancelled by the contractor without permission of the University authority. Minimum 3 month advance intimation shall be given by the contractor for short closing / cancellation of the contract.





**SPECIAL CONDITIONS (SCOPE OF WORK)**

The following conditions are also covers in scope of work

1. The under mentioned equipments are covered in scope of comprehensive maintenance contract.
  - Transformer of different rating installed at as.
  - VCB, ACB & MCCB.
  - Current & Potential transformers (LT 415 V and HT 11 KV and 33 KV)
  - LT panels of different rating.
  - Relays & control system fixed into the panel.
  - Rectifier unit (installed into the HT panels).
  - Isolator (HT 33kv) & line bus-bar.
2. The installation shall be maintained in the existing original condition / position. The installation is running quit satisfactory. The contractor shall be solely responsible for maintenance and upkeep of the equipments in good conditions.
3. The preventive maintenance schedule shall be prepared and submitted in advance. The necessary shutdown may be taken with prior permission of the university.
4. Proforma for quarterly & yearly checking should be filled up after doing preventive maintenance of equipments. The maintenance records shall be check and verified by the competitive authority.
5. Testing, calibrating & setting of all the relays installed at different sub-station has to be done ones in year and report has to be submitted by contactor in the office JE ( E) of the work. If any breakdown occurs, all the testing activities shall be repeated as and when required.
6. The services shall be maintained 365 days in the year and shall not be closed on holidays, weekends, festivals etc. If necessary, the contractor will have to retain his staff in the campus over night if there is any disturbance in the city due to band, workers strike etc.
7. The qualification and experience of the staff shall be as under :-
  - (a) Supervisor - Diploma with one years experience or ITI  
With 3 years work experience in similar field.
  - (b) Electrician /operator- Skilled in the similar field
  - (c) Helper - Literate, preferably High School Pass.
8. The operation & Maintenance of the sub-station service shall be carried out round the clock in the following shifts:-
 

Shifts No.-1	: 06:00 AM to 02:00PM
Shifts No.-2	: 02:00 PM to 10:00 PM
Shifts No.-3	: 10:00 PM to 06:00AM
9. The location of the sub-station is as follows.-
 

Station	Location
1- Electric Sub-station 33/11 KV	- Near type I colony
2- Electric Sub-station 11/.433 KV	- Near campus school tube well
3- Electric Sub-station 11/.433 KV	- Near paramedical building
4- Electric Sub-station 11/.433 KV	- Near IBM building
5- Electric Sub-station 11/.433 KV	- Near UIET III
10. Breakdown of electric sub-station should be attended on priority .No electric sub-station shall remain out of service for more than 24 hrs.
11. The contractor shall provide, at the proper time the necessary workmen, supervisors and other person duly qualified, experienced and in sufficient numbers for the awarded works. The change in qualifications and experience of different categories of person will require prior approval of the Engineer of the contract.
12. Contractor will provide one skilled mechanic/operator and one helper in all the three shifts for smooth function of operation (8 Hours each shift) at 33/11 KV switch yard and substation.

13. Contractor will provide two skilled electrician and four helper in general Shift only (8 Hours shift) wherever required their service within the for electrical maintenance of university campus.
14. Contractor will provide at least one technical supervisor in General shift 9.00 AM to 6.00 PM, to look after about all the activities of operating staff and maintenance work.
15. Maintaining the sub-station neat & clean at all times
16. A proper painting of all the equipment of outdoor switch yard, indoor electrical panel, bus duct entire sub-station bldg. and code sign writing shall be done within three months time after placement of the order i/c maintenance of window, door, shutter, water supply system etc.
17. Checking and maintenance of all the batteries' and battery chargers including topping up of the battery water. A record with the Reading of the batteries value shall be maintained on daily basis.
18. Checking and maintenance of all other accessories of the HT/LT panels' include Indicators, amp. Meters, volt meters, KVh meter and should be in working condition all the time.
19. All the lighting equipment's including tube lights, fittings & its accessories, lams, CFL, GLS lamps; Switch & Sockets, MCB's, DB.s, wiring etc. shall be maintained all the time and illumination should be proper.
20. Protecting the sub-station against theft and trespass.
21. Maintaining close liaison with the controlling officer and the for receiving instruction and deploying manpower as per the requirements.
22. Refilling and maintenance of five numbers fires Extinguisher 4.5 kg capacity and its testing thought authorized agency and fire buckets by filling of sand.

#### **Weakly Checking**

##### **1. Transformers:**

Checking of oil level (topping if reqd.) oil leakage, colour of silica gel (Breather)(heating if reqd.), Vent diaphragm, Tap position of transformer, neutral earthing connections up to earth pit etc.

##### **2. HT Panel ( 33/ 11KV Switchgear) :**

To be checked, indicating lamps, ammeter, voltmeter along with selector switches earthing connection of panels, cleaning of external panel, these should be closed properly and no space be left which allow the lizard or insect to enter.

##### **3. LT Panel (0.433 KV Switchgear):**

To be checked, indicating lamps, ammeter, voltmeter along with selector switches earthing connection of panels, cleaning of external panels, these should be closed properly and no space should be left which may allow lizard or insects to enter, visual inspection of ACB's, MCCb's SFU/FSU, all relays for any abnormality.

#### **Quarterly Checking**

##### **1. Transformers:**

- **HT and LT Bushing** :- Open cable box LT side and examine cracks, oil leakage etc. Terminal tighten nut & bolts and clean if required.
- **Silica gel** : Check condition of silica gel and replace if required, replace cup's oil.
- **Pressure relay**: To be checked mechanical indication and operating mechanism
- **Earth resistance of neutral earthing** : Record value of resistance dry & wet condition of earth pit.
- **Magnetic oil level gauge buchholze relay**: - Check its operation, control circuit and repair if required.

##### **2. HT Panels (33/11 KV Switchgear) :**

- Internal & External cleaning of panel.
- Tightening of main connection bus bard and cable connection. (outgoing)
- Checking interlocking system. (if required)
- Servicing of breakers.
- Oiling, greasing of operating mechanism.
- Auxiliary contacts, indicating devices, voltmeter, ammeter, KWH meter and selector switch etc. check and repair/ replace if required.
- Instrument & potential transformer to be checked.
- To check setting the relay time and contacts of relay of each breaker and record.
- Checking of panel's heater and thermostats.





**3. LT Panel (0.433 kv Switchgear) :**

- Internal & External cleaning of panel.
- Tightening of connection bus-bar and cable connection (outgoing).
- Oiling, greasing of operating mechanism.
- Auxiliary contacts, indicating devices, voltmeter, ammeter and selector switch etc. check and repair/ replace if required.
- Instrument & potential transformer to be checked.
- To check setting the relay time and contacts of relay of each breaker and record.
- Servicing of breakers.

**Half Yearly****1. Transformer**

- HT and LT bushing :- To Open cable box examine cracks in bushing. Tighten bolts if reqd. measure IR value with 10,000 volts megger.
- Silica gel :- Replacement of silica gel and cup oil.
- Pressure relay :- To check the mechanical indication and operating mechanism.
- (Earth resistance of neutral earthing):- Record value of resistance dry & wet condition of earth pit.
- Break down test of transformer oil: - BDV with 2.5 mm gap
 

(I) Top Sample	kv
(ii) Bottom sample.	kv
- Buchholze Relay, magnetic oil gauge :- Check its operation, control circuit and repair replace as required.
- IR Value.

**2. HT Panel (33/11 kv Switchgear)**

- Internal & external cleaning of panel.
- Tightening of main connection bus-bar and cable connection.
- Checking interlocking system.
- Oiling greasing of operating mechanism
- Auxiliary contacts, indicating devices, voltmeter, ammeter, and selector switch etc. check and repair/ replace if required.
- Instrument & potential transformer to be checked
- To checking setting/calibrating the relay time and contacts of relay of each breaker and record.

**3. LT Panels (0.433 kv Switchgear) :**

- Internal & external cleaning of panel.
- Tightening of connection bus-bar and cable connection.
- Oiling and greasing of operating mechanism
- Auxiliary contacts, indicating devices, voltmeter, ammeter, and selector switch etc. check and repair/ replace if required.
- Instrument & current transformer to be checked
- To checking setting the relay time and contacts of relay of each breaker and record.

**Yearly Checking****1. Transformer**

- HT and LT Bushing :- To Open cable box examine cracks in bushing. Tighten bolts if reqd. measure IR value with 10,000 volts megger.
- Silica gel :- Replacement of silica gel and cup oil.
- Pressure relay :- To check the mechanical indication and operating mechanism.
- Earth resistance of neutral earthing:- Record value of resistance dry & wet condition of earth pit.

- Break down test of transformer oil :- BDV with 2.5 mm gap.
  - (I) Top Sample KV
  - (ii) Bottom sample. KV
- *Buchholze Relay, magnetic oil gauge* :- Check its operation, control circuit and repair replace as required.
- *Centrifuging of transformer oil and check acidity* :- Sludge and submit test report
  - (i) (ii) B.D.V 2.5 mm gap for breakdown 3 sample
  - (ii) Sludge/Acidity value.
  - (iii) IR value

**2. HT Panel (33/11kv Switchgear)**

- Servicing of breaker
- operation checking of breaker
- Control circuit and its accessories i.e aux contactors, connection, coils etc.) Repair/replace if required.
- Check gas pressure and record heating system and its operation to be checked.
- Cleaning of circuit.

**3. LT Panel (0.433 kv Switchgear)**

- Servicing of ACB's & MCCB's.
- Operation checking of ACB,s & MCCB,s .
- Auxiliary contacts, indicating devices, voltmeter, ammeter, and selector switch etc. check and repair/ replace if required.
- Instrument & current transformer to be checked.
- To check setting the relay time and contacts of relay of each breaker and record.





**Special Condition for safety at the work site**

The Contractor will identify one of the supervisors for taking care of implementation of safety systems. The contractor should follow the following general guidelines governing the safety rules as laid down under:-

1. Smoking is strictly prohibited at workplace.
2. Nobody is allowed to work without wearing safety helmet. Chinstrap of safety helmet shall be always on driver, helpers and operators are no exception.
3. No one is allowed to work at or more than three meters height without wearing safety belts and anchoring the lanyard of safety belts to firm support preferable at shoulder level.
4. No one is allowed to work without adequate foot protection.
5. Usage of eye protection equipment shall be ensured when workmen are engaged for grinding, chipping welding and gas- cutting. For other jobs as and when site safety co- coordinator insists eye protection has be provided.
6. All safety appliances like safety shoes, safety gloves, safety helmet, safety belt, safety goggles etc. shall be arranged before starting the job.
7. Adequate illumination at work place shall be ensured before starting the job at night.
8. All the dangerous moving parts of the portable / fixed machinery being used shall be adequately guarded.
9. Ladders being used at site shall be adequately secured at bottom and top. Ladders shall not be used as work platforms.
10. Other than electricians no one is allowed to carry out electrical connections, repairs on electrical equipments or other jobs related thereto.
11. Inserting of bare wires for tapping the power from electrical sockets is complete prohibited.
12. A tools and tackles inspection register must be maintained and updated regularly.
13. Debris, scrap and other materials to be cleared from time to time from the work place and at the time of closing of work every day.
14. All the unsafe conditions, unsafe acts identified by contractors, reported by the site supervisors and / or safety personnel to be corrected on priority basis.
15. No children shall be allowed to enter the work palace.
16. Return cables shall be used for earthing.



## CHHATRPATI SHAHU JE MAHARAJ UNIVERSITY, KANPUR

### Technical Bid

Name and address of the firm.....

.....Telephone No.....

Electric License No. ....

Enlistment Details.....

Experience Details.....

GST Number:-.....

PAN No..... EPF No.....

#### ***Details of Earnest Money -***

EMD Amount Rs..... Bank Name & Branch.....

Bankers Cheq. / D.D/FDR No..... Date.....

#### ***Details of Tender cost -***

Tender Cost Rs..... Receipt / D.D No.....

Bank Name & Branch..... Date.....

I have read all the terms and condition and I pledge to abide by them.

Date & Signature of Tenderer (With Seal):-.....

#### ***Enclosures :-***

  
Registrar  
C.S.J.M. University, Kanpur



## FINANCIAL BID

**SCHEDULE OF QUANTITY**

**Name of Work:-** Operation & AMC of electric sub-stations 33/11 kv & 11/.433 kv - 04 no's in CSJM University, Kanpur

SL. NO	DESCRIPTION	QTY	RATE	UNIT	AMOUNT
1	Operation & AMC of Electric Sub Station 33/11 kv & 11/ 0.433 kv -04 Nos.	12 months		monthly	
2	Providing of following kind of man power for Electrical Maintenance of University campus. Outdoor power distribution system all type of electrical infernal & External wiring of office building & residential building only for general shift.				
	a) Electrician skilled -02 Nos.	12 months		monthly	
	b) Helper -04 No's.	12 months		monthly	
<b>Total Rs.</b>					

(In words.....)

  
**Registrar**  
**C.S.J.M. University, Kanpur**